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ABSTRACT

This resource guide for the use of job aids ("how-to-do-it" guidance) for activities identified in the first phase of the Instructional Systems Development Model (ISD) contains an introduction to the use of job aids, as well as descriptive authoring flowcharts for Blocks I.2 through I.5. The introduction includes definitions; descriptions of classification systems and flowchart symbols; instructions for using the Job Aid Manual; a description of the Job Aids Resource Manual; an explanation of the reporting system; information on the use of field surveys and panels; and an example of a closed form questionnaire together with the procedures for its administration. A flowchart is provided for each of the four activities in Phase I--ANALYZE: (1) selection of tasks for training, (2) task analysis, (3) analysis of the existing course, and (4) selection of instructional setting. (LLS)

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JOB AIDS: DESCRIPTIVE AUTHORING FLOWCHARTS FOR PHASE I-ANALYZE OF THE INSTRUCTIONAL SYSTEMS DEVELOPMENT MODEL

MANPOWER AND EDUCATIONAL SYSTEMS TECHNICAL AREA

MAY 1980

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A Field Operating Agency under the Jurisdiction of the Deputy Chief of Staff for Personnel

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The purpose of the research was to develop job aids ("How to do it" guidance) for the activities identified in the Instructional Systems Development Model (ISD, TRADOC Pamphlet 350-30). Job aids are available for each of the five phases of the ISD model - ANALYZE, DESIGN, DEVELOP, IMPLEMENT, and CONTROL. Each job aid is composed of a Descriptive Authoring Flowchart and a Job Aid Manual. This volume covering Phase I-ANALYZE, contains an Introduction to the Use of the Job Aids and the Descriptive Authoring Flowcharts for Blocks I.2 through I.5. The supplementary Job Aid Manuals for Phase I are available in a

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20. companion document.

FOREWORD

The Computer-Based Instructional Systems Team of the US Army Research Institute for the Behavioral and Social Sciences performs research and development in the area of educational technology that applies to military training. Of interest are methods for training individuals to develop and utilize instructional courseware in reasonable time, at acceptable cost. ARI research in this area is conducted under Army Project 2Q263743A794, FY 80 Work Program.

This Research Product is one of a series of 10 volumes designed to provide guidance on the application of the Instructional Systems Development model. The work was accomplished by Mr. Russel E. Schulz and Mrs. Jean R. Farrell, Human Resources Research Organization, Contract No. DAHC19-78-C-0010 and personnel of the ARI Manpower and Educational Systems Technical Area. Personnel from the Directorates of Training Development at Ft. Belvoir, VA and Ft. Gordon, GA provided assistance in the evaluation of the work.

JOSEPH ZEIDNER
Technical Director

INTRODUCTION TO THE USE OF JOB AIDS AND JOB AID RESOURCE MANUAL

JOB AIDS: DESCRIPTIVE AUTHORING FLOWCHARTS FOR PHASE I-ANALYZE OF THE INSTRUCTIONAL SYSTEMS DEVELOPMENT MODEL

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JOB AIDS: DESCRIPTIVE AUTHORING FLOWCHARTS FOR PHASE I-ANALYZE OF THE INSTRUCTIONAL SYSTEMS DEVELOPMENT MODEL

BRIEF

Requirement:

To develop a series of job aids for the activities identified in the Instructional Systems Development Model (ISD, TRADOC Pamphlet 350-30).

Procedure:

A series of job aids were designed and developed for each of the five phases of the ISD model: ANALYZE, DESIGN, DEVELOP, IMPLEMENT, and CONTROL. Each job aid is comprised of Descriptive Authoring Flowcharts and a Job Aid Manual which provide specific guidance, examples, and references necessary to produce the product specified by the ISD Block it covers.

Utilization:

These job aids will be used by military training personnel in meeting the requirements of the ISD model.

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WHAT ARE JOB AIDS?

- Job Aids are intended to be stand-alone, step-by-step procedural guides which we hope will permit you to turn out quality instructional products quickly and easily. We also hope that they will be equally useful to individuals at all experience levels of the instructional systems development process.

- Job Aids are intended to address real needs. Prior to the development of the Job Aids, instructional technology personnel (individuals like yourself) at the U.S. Army Signal Center and the U.S. Army Engineer School were surveyed to determine specific ISD needs—those areas in which they had the greatest need for assistance and information. Emphasis was placed on satisfying these needs in the development of the Job Aids.

- Job Aids use the same classification system for identifying the activities that must be performed in instructional systems development (ISD) as does TRADOC Pamphlet 350-30 (Interservice Procedures for Instructional Systems Development).

WHAT IS THE CLASSIFICATION SYSTEM USED IN TRADOC PAMPHLET 350-30 AND JOB AIDS?

- TRADOC Pamphlet 350-30 suggests that instructional systems development be conducted in five phases:
  - Analyze
  - Design
  - Develop
  - Implement
  - Control

- For those of you who are unfamiliar with TRADOC Pamphlet 350-30 we suggest you read the brief description of each phase of the ISD process as shown in Table 1. In the TRADOC Pamphlet each ISD phase is divided into specific activities called ISD blocks. Table 2 shows these ISD blocks and Table 3 shows the outcome of each block.

- Job Aids cover the activities required for the first three phases of the TRADOC Pamphlet (i.e., Analyze, Design, and Develop instructional systems). The Aids cover each ISD block within these phases except for ISD Block I.1, Analyze Job.

Table 1

FIVE PHASES OF INSTRUCTIONAL SYSTEMS DEVELOPMENT (ISD)

THE FIVE PHASES ARE:

PHASE I
ANALYZE

Inputs, processes, and outputs in Phase I are all based on job information. An inventory of job tasks is compiled and divided into two groups: tasks not selected for instruction and tasks selected for instruction. Performance standards for tasks selected for instruction are determined by interview or observation at job sites and verified by subject matter experts. The analysis of existing course documentation is done to determine if all or portions of the analysis phase and other phases have already been done by someone else following the ISD guidelines. As a final analysis phase step, the list of tasks selected for instruction is analyzed for the most suitable instructional setting for each task.

PHASE II
DESIGN

Beginning with Phase II, the ISD model is concerned with designing instruction using the job analysis information from Phase I. The first step is the conversion of each task selected for training into a terminal learning objective. Each terminal learning objective is then analyzed to determine learning objectives and learning steps necessary for mastery of the terminal learning objective. Tests are designed to match the learning objectives. A sample of students is tested to insure that their entry behaviors match the level of learning analysis. Finally, a sequence of instruction is designed for the learning objectives.

PHASE III
DEVELOP

The instructional development phase begins with the classification of learning objectives by learning category so as to identify learning guidelines necessary for optimum learning to take place. Determining how instruction is to be packaged and presented to the student is accomplished through a media selection process which takes into account such factors as learning category and guideline, media characteristics, training setting criteria, and costs. Instructional management plans are developed to allocate and manage all resources for conducting instruction. Instructional materials are selected or developed and tried out. When materials have been validated on the basis of empirical data obtained from groups of typical students, the course is ready for implementation.

PHASE IV
IMPLEMENT

Staff training is required for the implementation of the instructional management plan and the instruction. Some key personnel must be trained to be managers in the specified management plan. The instructional staff must be trained to conduct the instruction and collect evaluative data on all of the instructional components. At the completion of each instructional cycle, management staff should be able to use the collected information to improve the instructional system.

PHASE V
CONTROL

Evaluation and revision of instruction are carried out by personnel who preferably are neither the instructional designers nor the managers of the course under study. The first activity (internal evaluation) is the analysis of learner performance in the course to determine instances of deficient or irrelevant instruction. The evaluation team then suggests solutions for the problems. In the external evaluation, personnel assess job task performance on the job to determine the actual performance of course graduates and other job incumbents. All collected data, internal and external, can be used as quality control on instruction and as input to any phase of the system for revision.

Table 2

ISD BLOCKS IN EACH OF THE FIVE ISD PHASES

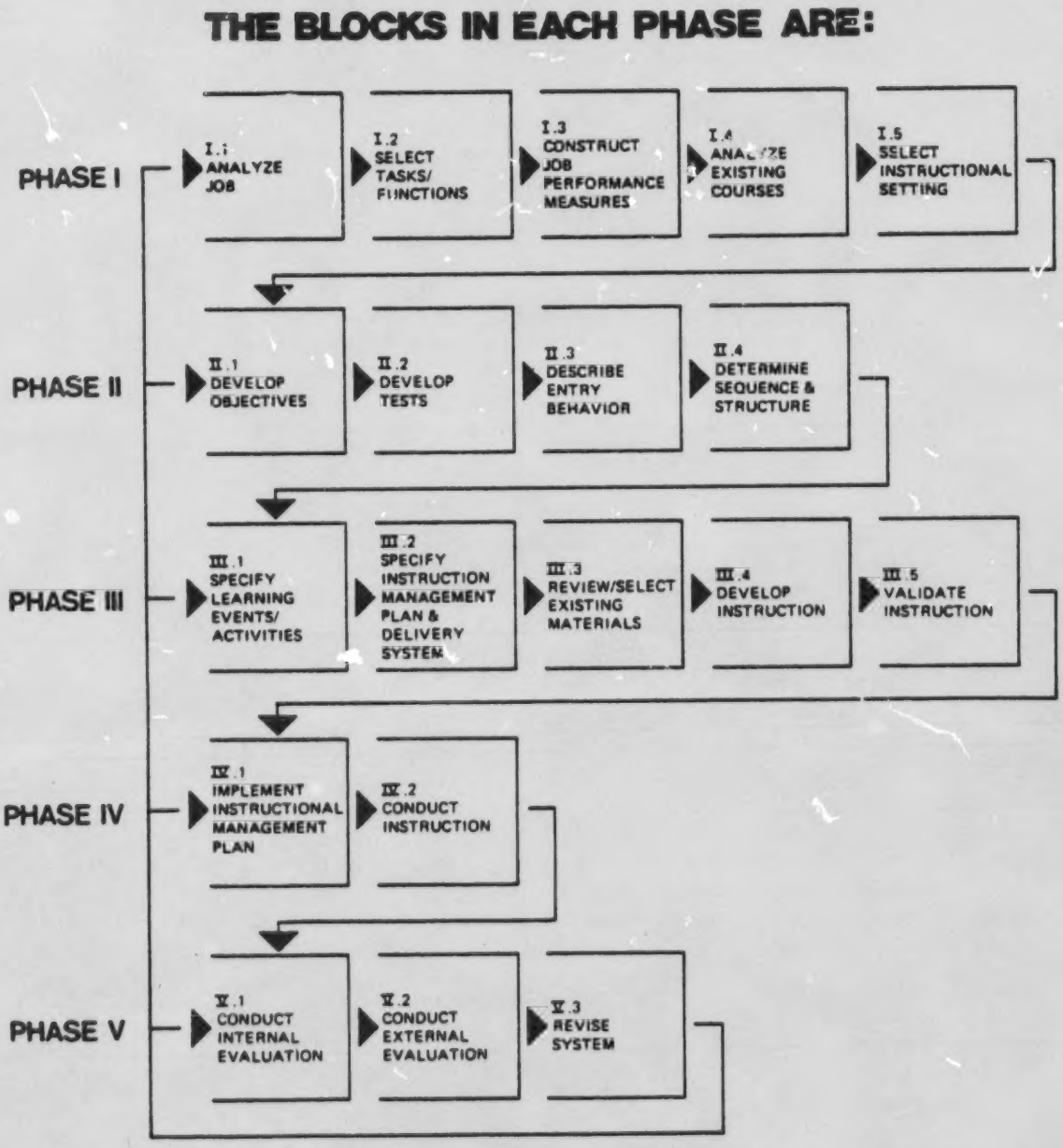


Table 3

OUTCOMES OF ISD BLOCKS

THE OUTCOMES OF THE BLOCKS ARE:

I

- .1 . . . a list of tasks performed in a particular job.
- .2 . . . a list of tasks selected for training.
- .3 . . . a job performance measure for each task selected for instruction.
- .4 . . . an analysis of the job analysis, task selection, and performance measure construction for any existing instruction to determine if these courses are usable in whole or in part.
- .5 . . . selection of the instructional setting for task selected for instruction.

II

- .1 . . . a learning objective for and a learning analysis of each task selected for instruction.
- .2 . . . test items to measure each learning objective.
- .3 . . . a test of entry behaviors to see if the original assumptions were correct.
- .4 . . . the sequencing of all dependent tasks.

III

- .1 . . . the classification of learning objectives by learning category and the identification of appropriate learning guidelines.
- .2 . . . the media selections for instructional development and the instructional management plan for conducting the instruction.
- .3 . . . the analysis of packages of any existing instruction that meets the given learning objectives.
- .4 . . . the development of instruction for all learning objectives where existing materials are not available.
- .5 . . . field tested and revised instructional materials.

IV

- .1 . . . documents containing information on time, space, student and instructional resources, and staff trained to conduct the instruction.
- .2 . . . a completed cycle of instruction with information needed to improve it for the succeeding cycle.

V

- .1 . . . data on instructional effectiveness.
- .2 . . . data on job performance in the field.
- .3 . . . instructional system revised on basis of empirical data.

WHAT SOURCES OF INFORMATION WERE USED IN THE DEVELOPMENT OF JOB AIDS?

- Job Aids are not just a re-hash of TRADOC Pamphlet 350-30. We use the same classification system for ISD phases and the blocks within the phases as does the TRADOC Pamphlet. However, the guidance and information provided in the Job Aids come from a variety of sources, the TRADOC Pamphlet being only one such source. We have gathered information from any source that we could locate. If the information was judged to be good it was included in the Job Aids. In some instances the information in the Job Aid is based solely on the educational technology experience of the project staff.

- It is not within the scope of this Introduction to list all sources of information examined or used in the development of the Job Aids. However, in addition to TRADOC Pamphlet 350-30 examples of other sources of information would include the following types:

  - TRADOC Circulars
  - DA Pamphlets
  - Printed Guidance prepared by TRADOC Schools (e.g., U.S. Army Signal Center)
  - Army Research Institute Documents
  - HumRRO publications
  - Other military and civilian agencies

WHAT JOB AIDS ARE PRESENTLY AVAILABLE AND WHAT DO THEY CONSIST OF?

- There are thirteen Job Aids presently available. Each Job Aid is comprised of two documents. A brief description of each is provided below: (A complete description of how to use each is given on the pages that follow.)

  - Descriptive Authoring Flowcharts. The Descriptive Authoring Flowcharts (usually referred to as Flowchart Manuals) are the primary documents used in the Job Aids. They direct the user to specific guidance, examples and references provided in the Job Aid Manuals.

  - Job Aid Manuals. As stated above, the Job Aid Manuals provide the specific guidance, examples and references necessary to produce the product specified by the ISD Block they cover. In addition, each Job Aid Manual contains one or more Worksheets to use in the development of the product.

- Another important part of the Job Aids package is of course the document you are presently reading, Introduction to the Use of Job Aids and Job Aid Resource Manual.

- The specific Job Aids available are: (Flowchart Manual and Job Aids Manual for each).

  - Job Aid for Selecting Tasks for Training (ISD I.2)
  - Job Aid for Conducting Task Analysis (ISD I.3)
  - Job Aid for Analyzing Existing Courses (ISD I.4)
  - Job Aid for Selecting Instructional Settings (ISD I.5)
  - Job Aid for Developing Objectives (ISD II.1)
  - Job Aid for Developing Tests (ISD II.2)
  - Job Aid for Describing Entry Behavior (ISD II.3)
  - Job Aid for Determining Sequence and Structure (ISD II.4)
  - Job Aid for Specifying Learning Events and Activities (ISD III.1)
  - Job Aid for Specifying Instructional Management Plan and Delivery System (ISD III.2)
  - Job Aid for Review and Selection of Existing Materials (ISD III.3)
  - Job Aid for Developing Instruction (ISD III.4)
  - Job Aid for Validating Instruction (ISD III.5)

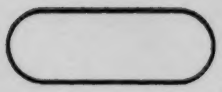
WHAT ARE THE MAIN PARTS OF THE FLOWCHART MANUAL?

- Scan through a few pages of your Flowchart Manual. Observe the following:
  - Flowchart symbols used
  - Instructions or questions within the flowchart symbols
  - Supplemental information opposite most of the flowchart symbols
  - Flowchart block and page numbering system
- For a complete description of each of the main parts of the Flowchart Manual see the pages that follow.

WHAT FLOWCHART SYMBOLS ARE USED IN THE FLOWCHART MANUAL?

- **Flowchart Symbols**

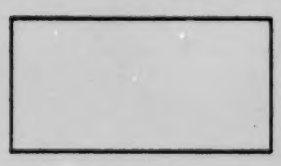
  — Only five symbols are used in the Flowchart Manual. These symbols and the instructions within them act as a road map to lead you step-by-step through the process of developing your particular product. We believe that after you have gotten used to using the Flowchart Manual you will find it a very useful control document. The five symbols used are as follows:



Start-Stop Symbol — Indicates either the start or stop of the activities called for in the Flowchart Manual.

Decision Symbol — Indicates that you must make a decision at this point which will determine the path that you take thru the Flowchart Manual.

Manual Symbol — Indicates that you are to refer to the Job Aid Manual for specific additional guidance or instruction shown in the symbol.



Rectangle Symbol — Indicates an activity that must be performed but does <u>not</u> require specific additional guidance or instruction in the Job Aid Manual. (In some cases the user is given the option of going to the Job Aid Manual to see a completed example of the activity called for in the rectangle symbol).

Go To Symbol — Indicates a branch to some other flowchart block. The branch will either be to a previously encountered block or will jump you over blocks that can be omitted.

WHAT INSTRUCTION IS PROVIDED WITHIN THE FLOWCHART SYMBOLS?

- Each flowchart symbol except the Decision Symbol contains a brief statement of the activity that you are to perform. If this activity requires the completion of part of a Worksheet the specific part of the Worksheet will be identified (remember, each Job Aid includes one or more Worksheets). Decision blocks always contain a question that can be answered with a yes or no answer. The branch you take after the decision block will depend upon your answer.

WHAT IS THE PURPOSE OF THE SUPPLEMENTAL INFORMATION PROVIDED IN THE FLOWCHART MANUAL?

- The supplemental information that is located beside most of the flowchart symbols serves the following purposes:

  — Provides a more complete description of the steps or activities that must be performed in the ISD Block you are working in than does the flowchart itself.

  — Refers you to specific pages within the Job Aid Manual for specific guidance, examples and references needed for completing the activity called for in the flowchart block. (This is associated with the Manual symbol.)

  — For some flowchart blocks (rectangle symbol) examples of the completed activity are shown in the Job Aid Manual. The supplemental information indicates the specific page in the Job Aid Manual containing the example. However, the user has the option of going to the Job Aid Manual to see the example. (The Manual symbol, on the other hand, requires the user to go to the Job Aid Manual.)

  — Acts as an executive summary which will allow commanders and supervisors to obtain a picture of the activities required by the Job Aid without reading the entire Job Aid Manual.

WHAT IS THE FLOWCHART BLOCK AND PAGE NUMBERING SYSTEM?

- The flowchart block and page numbering system is as follows:

  — Flowchart blocks are numbered so that they can be easily referred to.

  — The page numbers in each of the 13 Flowchart Manuals are preceded by an identifying letter unique to a specific ISD Block. (E.g., The Flowchart Manual pages for ISD Block I.2 go from A-1 to A-15 whereas for ISD Block I.3 the Flowchart Manual pages go from B-1 to B-15.) This same page numbering system is also used in the Job Aid Manuals.

HOW DO I USE THE JOB AID MANUAL AND WHAT ARE THE MAIN PARTS OF IT?

- It is unlikely that you will need to refer to every page in the Job Aid Manual. As previously stated, the Job Aid Manuals are used as supplements to the Flowchart Manuals that direct you to specific pages within the Job Aid Manuals. Therefore, DO NOT ATTEMPT TO USE THE JOB AID MANUALS INDEPENDENTLY OF THE FLOWCHART MANUALS.

- Scan through a few pages of your Job Aid Manual. Observe the following:

  — Partial flowcharts shown at the top of pages

  — Questions written in script that appear on most pages

  — Completed, or partially completed examples of Worksheets

WHAT IS THE PURPOSE OF THE PARTIAL FLOWCHARTS AT THE TOP OF SOME PAGES OF THE JOB AID MANUAL?

- When you are referred to the Job Aid Manual you will find a partial flowchart at the top of the Job Aid Manual page. You are to remain working with the Job Aid Manual until you come to another partial flowchart. Then return to the Flowchart Manual.

- The partial flowcharts are identical to those shown in the Flowchart Manual. They serve as an additional reminder of the activity being dealt with at the moment.

WHAT IS THE PURPOSE OF THE QUESTIONS WRITTEN IN SCRIPT THAT APPEAR ON SOME PAGES OF THE JOB AID MANUAL?

- The questions written in script are our way of telling you what follows. They highlight such things as:
  - The purpose of performing a certain activity
  - How the activity is performed
  - What sources are available for performing the activity and how good they are
  - What the Worksheet looks like after the activity is performed

WHAT IS THE PURPOSE OF THE COMPLETED OR PARTIALLY COMPLETED EXAMPLES OF WORKSHEETS?

- As previously stated, every Job Aid Manual uses one or more Worksheets (located in a pocket at the back of the Manual). The Worksheets permit you to produce (and document) the product called for in the ISD Block.
- Whenever you are required to make an entry on a Worksheet an example of that type of entry will be shown in the Job Aid Manual and will usually be circled so as to make it stand out. It is hoped that these examples will give you a clear idea of what is required on the Worksheet.

WHAT DOES THIS ALL MEAN AND WHAT DO I DO NOW?

- In this Introduction we have attempted to explain the following:
  - What Job Aids are
  - The classification system (ISD Phases and Blocks) used in the Job Aids
  - Sources of information used in the development of Job Aids
  - Job Aids presently available
  - A description of Flowchart Manuals
  - A description of Job Aid Manuals
- If you feel that you have an adequate understanding of the above, return to the Flowchart Manual now. You will be referred to specific pages in the Resource Manual (the remainder of this document) as you need the information contained in them. Do not attempt to read the Resource Manual now.

RETURN TO THE FLOWCHART MANUAL NOW

JOB AIDS RESOURCE MANUAL

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HOW CAN THE RESOURCE MANUAL HELP ME?

The purpose of this resource manual is to assist you in the formation of a data-based system for decision making in the Analysis Phase of the Instructional Systems Development (ISD). In order to make logical and objective decisions based on conditions and needs in the field, you must collect, organize, analyze, and document job significant data (information). Such data includes many specifics under the broad categories of job background data, target population data, and critical task data. The specifications of specific data requirements and sources of this data should be part of the overall Job Analysis Plan.

WHAT ARE SOME SOURCES OF JOB SIGNIFICANT DATA?

There are many sources of data to support a job analysis.

These sources include such things as:

- Technical Manuals
- Field Manuals
- Army Regulations
- Circulars and Phamplets
- Programs of Instruction
- Soldier's Manuals
- Previous Task Lists
- Documentation from the Systems Engineering Era
- Reports from outside agencies, i.e., Army Research Institute, HumRRO, and other military and civilian research organizations
- Internal Research Reports
- Tables of Organization and Equipment and Tables of Distribution and Allowances
- Civilian Publications (technical journals and professional publications)
- Equipment Modification Work Orders
- CODAP (Comprehensive Occupational Data Analysis Programs)
- Field Surveys
- Panels of Experts

WHICH SOURCES OF DATA ARE INCLUDED IN THE RESOURCE MANUAL?

Each of the sources listed is useful for fulfilling specific needs in the Analysis Phase of ISD. The Job Analysis Plan should specify exactly which items of data will be needed and the recommended source(s) for each item. In this way all the data can be accessed and ready for use as soon as it is needed. The last three sources on the list, CODAP, Field Surveys, and Consensus Groups or Panels, are frequently cited in the Job Aids for specific items of information. How to use these sources is the subject of this manual.

CODAP

WHAT IS CODAP?

To provide personnel managers and training managers with the reliable job data needed for job and task analysis, the Deputy Chief of Staff for Personnel has selected the occupational survey questionnaire for data collection and CODAP (Comprehensive Occupational Data Analysis Programs) as the system for processing, reporting, and analyzing this data. The combination of questionnaire and CODAP is currently being used by all the U.S. Armed Forces to support their occupational survey and job analysis efforts. This automated data system provides information in such areas as: duties and tasks performed by job and duty incumbents; types of equipment, tools, and vehicles used and maintained; special skills and knowledge which must be met by job incumbents; quality and quantity of training received or required; physical and mental demands; and special items pertaining to personal and job background information, work environment, and job satisfaction.

WHEN SHOULD CODAP REPORTS BE USED?

Whenever data has already been prepared by CODAP it should be used in preference to school conducted surveys in order to prevent duplication of effort. CODAP has the capability of supplying all your data needs. It is the responsibility of each Army service school to initially provide the Army Occupational Survey Program with the input it must have to supply your job analysis needs, and also to develop a job analysis plan which allows sufficient time to access the necessary data.

Of particular use in job analysis are Group Summary Reports. The Job Aids suggest that you obtain these reports for documenting such information as: tasks performed in each duty position (ask for GPSUM6 report for your MOS), and percentage of soldiers in the skill level performing each task (ask for GPSUM 2).* Given sufficient lead time CODAP can also make up special reports to provide ratings on task selection factors such as, time to train OJE, consequences of inadequate performance, and probability of emergency performance (ask for FACSUM report).

HOW ARE CODAP REPORTS OBTAINED?

In order to obtain CODAP data you should first check with your supervisor to see if the information you need has already been accessed. If it has not, write to:

Commander
US Army Military Personnel Center
ATTN: DAPC-MSP-D
2641 Eisenhower Avenue
Alexandria, VA 22311

or call:

325-9272/9493 (AUTOVON 221-9272/9493).

Allow at least three weeks for the reports to arrive at your school. The necessary lead time could be much longer if you are requesting special information which CODAP has not yet collected. It is recommended that you obtain the two official guides from MILPERCEN: the US Army Military Occupational Data Bank, and the US Army Occupational Survey Program.

*Keep in mind that these percentages are based on the peacetime conditions in which soldiers are presently being surveyed. Adjustments should be made for combat tasks.

FIELD SURVEYS

WHAT IS A FORMAL FIELD SURVEY?

A formal field survey is similar to the type of questionnaire survey conducted by the Army Occupational Survey Program, only it is conducted by instructional development personnel within an Army service school.

The use of questionnaires permits the job analysis team to make limited contact with large numbers of personnel; thus large amounts of information can be collected at a relatively low cost. Questionnaires can be mailed to personnel who are asked to complete and return them, or they can be administered to groups of job incumbents and/or supervisors by local personnel who have the responsibility and authority to make sure all questionnaires are completed and returned.

WHEN SHOULD FORMAL FIELD SURVEYS BE USED?

Whenever time does not allow you to access information from the Army Occupational Survey Program, an alternate data collection method may be used. Formal field surveys are suggested as an alternate data source in the ISD Job Aids. Should you decide to conduct a formal field survey be sure to obtain permission from MILPERCEN in accordance with the guidelines in AR 600-46.

HOW IS A FIELD SURVEY QUESTIONNAIRE DESIGNED?

- **Types of Questionnaires**

There are two types of questionnaires, the closed form and the open form. We suggest using the closed form, which contains a list of possible items to be selected or blanks to be filled in with words or numbers. (For an example of a closed form questionnaire, see Appendix A.) This form has several advantages over the other alternative, the open form. It is likely to take a minimum amount of time to fill out, thus increasing the chances that it will be completed and returned. The process of tabulating and summarizing responses is simpler and less time consuming than with an open form questionnaire. Machine tabulation and computer analysis of the completed forms are practical when a large number of questionnaires is used.

A properly designed closed form questionnaire is difficult to prepare. The designer must be sure to include all possible responses expected from any of the soldiers who will complete the questionnaire. The items must be constructed on the form so that they clearly communicate to the user exactly what the designer is trying to ask. The greatest single problem with research methods is improperly worded questionnaires, as they produce faulty data. If you intend to design your own questionnaires we suggest consulting the following guides:

Morsh, J.E. and Archer, W.B. *Procedural guide for conducting occupational surveys in the United States Air Force* (PRL-TR-67-11). Lackland Air Force Base, Texas: Personnel Research Laboratory, Aerospace Medical Division, Air Force Systems Command, September 1967.

Jacobs, T.O. *Developing questionnaire items: how to do it well.* Human Resources Research Organization (HumRRO), 300 North Washington Street, Alexandria, Virginia 22314.

WHAT SHOULD BE INCLUDED ON THE QUESTIONNAIRE?

The details of the forms you use will be determined by:

1. how you will tabulate and summarize the results, and
2. what information you wish to collect.

How you will tabulate and summarize results will be determined by whether you have available a computer and other automated data handling equipment and by the number of people surveyed. **To determine what information you wish to collect, you should consider the total data requirement for the training development process. These data requirements should be predetermined in the job analysis plan so that as much information as possible can be obtained in a single questionnaire survey effort.**

One note of caution about the design of your questionnaire is that you should keep the questionnaire as short as practical. In general, the forms should be designed so they can be completed in two hours or less. One way you can save time on a complex task inventory is to list all tasks under their appropriate duty position title. This will permit the soldier to rapidly scan groups of tasks not performed and then proceed to the next duty position.

WHAT TYPE OF INSTRUCTIONS FOR COMPLETING AND ADMINISTERING THE QUESTIONNAIRES SHOULD BE PREPARED?

After the formal field survey questionnaires have been written, the instructions for completing and administering the questionnaires should be prepared. These instructions should include:

- For the user
  - — an introduction explaining the purpose and importance of participating in the field survey.
  - — general instructions explaining how the questionnaire is to be completed.
- For the project officer
  - — general instructions regarding responsibilities.
  - (When questionnaire is not self-administered) — specific instructions for administering the questionnaire in a controlled environment.

For examples of these types of instructions, see Appendix B.

HOW IS A SURVEY SAMPLE SELECTED?

You are now ready to select organizations and individuals to provide you with the needed job data. The complexity of the MOS, the availability and quality of published sources of job information, and the number of people in the particular job will determine how much and what kinds of information you need to collect. This will strongly influence the make-up and size of your sample. If the complexity and amount of required data are great, the number of organizations and individuals interviewed will increase. As a general rule, your survey sample should be as large as possible. This is particularly true if you do not have personnel available with the responsibility and authority to assure that most of your questionnaires will be completed. You should make an attempt to obtain a sample that represents the distribution of individuals in the MOS according to command and skill level. Review of personnel records, either by personnel employees, members of your job analysis team, or your field representatives who will conduct the survey will be required to obtain data upon which to base choices for your survey.

- In selecting UNITS for sampling, you should select units that:
  1. have at least a small number of job holders and supervisors who do the particular job to be analyzed. Preferably, you should choose some units that have a relatively small number of job holders, and some that have large numbers.
  2. are geographically and environmentally representative.
- In selecting INDIVIDUALS within the units, you should select a group made up of individuals who:
  1. perform and supervise the job being analyzed
  2. perform with average satisfactory proficiency
  3. are representative in terms of length of time on the job
  4. are representative in terms of training.

For certain types of information you will also want to choose at least a few job holders or supervisors who are acknowledged experts at the job.

HOW IS A QUESTIONNAIRE SURVEY CONDUCTED?

- **Trial Run (Validation of Instruments)**

Before sending out the total number of questionnaires you intend using, you may wish to send out a small number. This will permit you to check the initial results and possibly make some changes in your questionnaires or instructions. Then you will send out what you hope will be the total number of questionnaires required.

- **Group Administration**

The ideal way to administer questionnaires is group administration. Where the local responsible official and his assistants schedule the administration he should do the following:

— Make certain that only eligible individuals are seated in the administration area

— Read the administrative instructions

— Provide any necessary assistance in completing the questionnaires

— Return the completed questionnaires to the school

- **Individual Administration**

Often, particularly with individuals at remote stations, group administration is impractical. In these cases, it is sometimes effective to send the questionnaires to a responsible officer and request that they be returned by a reasonable suspense date. Careful attention should be paid to the instructions for administration or self-administration. If your command has no authority to require that a suspense date be met, then you must either obtain the concurrence of a command with that authority, or be willing to accept a reduced percentage return.

- **Return of Questionnaires**

How much confidence can you have in the validity of your questionnaire if you get less than a 100 percent return? Less and less confidence can be expected with each reduction in the percentage returned. What can you do if you are not satisfied with the percentage of returns of the questionnaires? We suggest you try the following:

1) Send out more forms to different people and hope for better results.

2) Recontact some of the first sample and try to encourage them to return the questionnaires.

3) Visit a random sample of those who did not respond and compare their forced responses with the voluntary responses. Then you and your supervisors will have to decide how much chance you are willing to take that the data you have received presents a sufficiently accurate picture of the job as it really exists.

PANELS

WHAT IS A PANEL OF EXPERTS?

With this method a group of personnel, selected for their experience and knowledge of the job, is brought together to confer about the required job analysis data. Panels may be made up of one or more of the following types of members:

1) Subject Matter Experts (SMEs)

   These are personnel found at your school who are acknowledged experts in the tasks, duty positions or MOS you are analyzing. They may be found among instructors or ISD personnel who hold the MOS. SMEs may or may not have had recent field experience.

2) Job Incumbents

   This group includes those who are presently holding the jobs/performing the tasks/ you are interested in, or who have recently held the jobs. The more recent the better. More than three years away from the field would disqualify a potential panel member.

3) Job Supervisors

   This group includes those who are presently or have recently (within the past three years) supervised soldiers in the jobs/tasks you are interested in.

Job incumbents and job supervisors may be found on the post where your school is located or at other locations. Check the TOEs and TOAs to find out where personnel may be assigned. While personnel assigned to your post are most conveniently assembled, they may not be completely representative of job incumbents/supervisors serving in other locations. Also, they probably have been heavily burdened by school surveys, panels, etc., already due to their proximity to the school. Therefore, personnel from other locations may have to be used.

WHEN IS A PANEL USED?

Panels of experts are a good alternate data source when:

- CODAP is not available
- time and funds are inadequate for conducting a field survey
- the type of information required can be reliably provided by a small group

WHEN ARE SUBJECT MATTER EXPERTS USED?

With this method, a group of highly experienced personnel is brought together to record and organize the required job analysis data. This method is particularly useful in collecting job data on new jobs or on managerial and supervisory jobs where many of the most critical behaviors are not directly observable. Since the members of a panel of SMEs are experts in the MOS being analyzed, their collective effort should be decisions about the requirements of the job. In general, their greatest effectiveness is in evaluating and making decisions about job data that have been collected from other sources by other means.

WHEN ARE RECENT JOB INCUMBENTS AND/OR SUPERVISORS USED?

With this method, a group of job incumbents, job supervisors, or a combination of these, is brought together to provide information about their jobs. The primary function of this type of panel is to provide information about their jobs, not to make decisions. Another name for this type of panel is Consensus Group.

HOW IS A PANEL ASSEMBLED?

The panel is a relatively inexpensive and easy approach to collecting data. Three to seven persons is the number recommended to make up the panel. Whenever possible, you want panel members to be representative of different locations and types of units in the field. While many experts may be available within your school it is critical that their views be balanced by those of persons serving presently or recently in the field. If all of the panel members come from schools, there may be a tendency for the outcome to reflect what exists in training rather than what actually exists on the job.

Appendix A

EXAMPLE OF A CLOSED FORM QUESTIONNAIRE

JOB INVENTORY (DUTY-TASK LIST)	AFSC 921X0/922X0	Page 7 of 46 Pages

1. Check tasks you perform now (✓).
2. Add any tasks you do now which are not listed.
3. In the "Time Spent" column, rate checked (✓) tasks on time spent in your present job.

Time Spent Scale

1 - VERY MUCH BELOW AVERAGE
2 - BELOW AVERAGE
3 - SLIGHTLY BELOW AVERAGE
4 - ABOUT AVERAGE
5 - SLIGHTLY ABOVE AVERAGE
6 - ABOVE AVERAGE
7 - VERY MUCH ABOVE AVERAGE

C. FITTING AND MAINTAINING LIFE RAFTS AND PRESERVERS		✓ CHECK IF DONE IN PRESENT JOB	TIME SPENT DOING THESE TASKS IN PRESENT JOB
1. Clean life preservers	42		
2. Clean life rafts	43		
3. Condemn non-repairable life rafts or life preservers	44		
4. Fit life preservers	45		
5. Inspect life preservers	46		
6. Inspect life raft accessories	47		
7. Inspect life rafts	48		
8. Inspect or weight test carbon dioxide (CO_2) cylinders or cartridges	49		
9. Make entries on or review Life Preserver Data forms (AFTO Form 408)	50		
10. Make entries on or review Life Preserver Inspection Data Record forms (AFTO Form 336)	51		
. . . . .			
11. Make entries on or review Life Raft Inspection Record forms (AFTO Form 337)	52		
12. Make entries on or review User Certification Label forms (AFTO Form 27)	53		
13. Pack life preservers	54		
14. Pack life raft accessory containers	55		
15. Pack life rafts	56		
16. Perform functional tests of life preservers	57		
17. Perform functional tests of life rafts	58		
18. Perform inflation tests of life preservers	59		
19. Perform inflation tests of life rafts	60		
20. Perform minor repairs to life preservers such as patching rips, tears, or holes	61		
. . . . .			
(Continued next page)			

JOB INVENTORY (DUTY-TASK LIST)	AFSC 821X0/822X0	Page 8 of 44 Pages

1. Check tasks you perform now (✓)
2. Add any tasks you do now which are not listed.
3. In the "Time Spent" column, rate checked (✓) tasks on time spent in your present job.

Time Spent Scale

1 - VERY MUCH BELOW AVERAGE
2 - BELOW AVERAGE
3 - SLIGHTLY BELOW AVERAGE
4 - ABOUT AVERAGE
5 - SLIGHTLY ABOVE AVERAGE
6 - ABOVE AVERAGE
7 - VERY MUCH ABOVE AVERAGE

C. FITTING AND MAINTAINING LIFE RAFTS AND PRESERVERS (CONTINUED)		✓ CHECK IF DONE IN PRESENT JOB	TIME SPENT DOING THESE TASKS IN PRESENT JOB
21. Refill CO_2 cylinders	02		
22. Send life raft compressed gas cylinders to other agencies for test, refill, or inspection	03		
23. Store life rafts or life preservers	04		
IF A TASK THAT YOU PERFORM IS NOT LISTED ANYWHERE IN THE ENTIRE LIST, WRITE IT IN THE BLANK SPACES BELOW.			

Appendix B

ADMINISTRATIVE PROCEDURES FOR CLOSED FORM QUESTIONNAIRE

1. Introduction (for user of questionnaire)
2. General Instructions (for user of questionnaire)
3. General Instructions (for project officer)
4. Specific Instructions for Administering Questionnaire (for project officer when questionnaire is administered in a controlled environment.

TO: USER OF QUESTIONNAIRE

INTRODUCTION

TO THE NONCOMMISSIONED OFFICER:

This questionnaire is part of a field survey designed to identify tasks for military police training. Its specific purpose is to obtain from you, the Noncommissioned Officer, information on task criticality and frequency of performance. Feedback gained from this questionnaire will play a major part in redesigning the Noncommissioned Officer Advanced Education System. The ultimate goal is to design training so that it reflects what we have learned from you in the field. This goal is possible only with your full cooperation. Consider each task listed in this questionnaire carefully and give your best response. Your contribution is essential to a successful survey.

TO: USER OF QUESTIONNAIRE

GENERAL INSTRUCTIONS

1. Complete this survey questionnaire within the time specified by your unit project officer and return it to him upon completion.

2. Because instructions for completing each part of this survey questionnaire are different, read all instructions carefully.

3. Part II requires that you supply biographical information. This information will be used to correlate feedback received from the field. Print all answers in the spaces provided on the appropriate survey questionnaire page.

4. In the upper right corner of each page of Part III, Task Inventory, of this survey questionnaire is a BOOKLET NUMBER block. Immediately to the left of this block is the individual booklet number. Print the individual booklet number in the BOOKLET NUMBER block on each page of the Task Inventory as demonstrated in the example.

EXAMPLE:

	BOOKLET NUMBER
	0 1 2 ■ 4 5 6 7 8 9
(000345)	0 1 2 3 ■ 5 6 7 8 9
	0 1 2 3 4 ■ 6 7 8 9

5. Part III, Task Inventory, is divided into nine (9) separate sections (Sections I-IX). The content of these sections concerns tasks you may perform in your present duty assignment. You are asked to rate each task in accordance with three criteria - frequency of task performance, immediacy of task performance, and importance of task to mission success.

   Base all selections on your experience in your present duty assignment.

   a. Column A requires that you rate how often you perform each task on a scale from one to four. The criterion for this rating is the frequency of task performance. Those tasks performed most frequently will normally be rated four while those tasks not performed at all will be rated one.

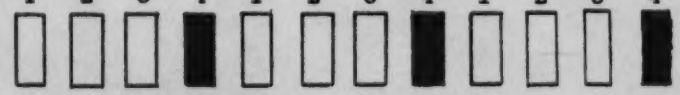
b. Column B requires that you determine how soon you must be capable of performing each task after reporting to your present duty assignment. The criterion for this rating is the immediacy of task performance. Of the four possible responses, select the one most nearly describing your requirements. Select response number four for those tasks which you must be capable of performing immediately upon reporting for duty. Select response number one for those tasks which you never perform.

c. Column C requires that you describe, in your opinion, how important each task is to mission success. The criterion for this rating is the importance of the task to the accomplishment of the unit mission. Those tasks that, in your opinion, are most important to mission success will be rated four while those tasks that you consider least important will be rated one.

6. After selecting, enter your responses for each task, using either a pen or pencil, in the answer portion adjacent to the appropriate task statement as demonstrated in the example.

EXAMPLE: The task PREPARE CORRESPONDENCE, if rated as performed FREQUENTLY in Column A, identified as must be capable of performing IMMEDIATELY in Column B, and determined by you to be MOST IMPORTANT in Column C, would be entered in the answer portion, as shown below.

PREPARE CORRESPONDENCE 1 2 3 4 1 2 3 4 1 2 3 4



7. After each section of Part III, Task Inventory, is a Write-In Section. These write-in sections are provided in order that you may comment on each task inventory section, or list any task(s) you think should be included in the Task Inventory. These sections also allow you to comment on those tasks that you find are the most difficult for you to perform.

TO: PROJECT OFFICER

GENERAL INSTRUCTIONS FOR PROJECT OFFICER

1. General. The Military Police School is currently involved in redesigning basic military police training to produce military policemen better equipped to perform when they reach the unit. The emphasis is toward training replacements in tasks actually being performed in the field. The questionnaires in this packet are designed to identify those tasks.

   The care with which you, the project officer, administer the questionnaires will determine the accuracy of field feedback and, consequently, the success or failure of this project.

2. Survey Packet Contents.

   a. Questionnaire

   b. Supervisor Questionnaire

   c. Project Officer Instructions

   d. Answer Sheets for Questionnaire

   e. Pencils for use on answer sheets.

3. Responsibilities.

   a. Unit Commander. The unit commander is requested to appoint a project officer and to monitor administration of the survey.

   b. Project Officer. The project officer is responsible for the control and handling of questionnaires, for the administration of the questionnaires, and for returning completed and unused questionnaires to the Military Police School.

   c. Questionnaire Administrator. The project officer may appoint someone to administer the questionnaire, if necessary. Normally, however, it is recommended that the project officer administer the questionnaire himself.

4. About the Questionnaires.

   a. Questionnaire. This questionnaire is designed to identify tasks being performed by military policemen in the field and the frequency with which each task is performed.

   b. Supervisor Questionnaire. The supervisor questionnaire is programmed to provide feedback on task criticality, probability of deficient performance, and the frequency with which each task is performed.

5. Who Takes The Questionnaire. The project officer is responsible for selecting individuals to take the questionnaires (respondents) within their units. Those selected must meet the requirements listed below:

   a. The questionnaire respondent must:

      (1) Be in an M.P. duty assignment (actually performing M.P. duties)

      (2) Have been on the job at least 90 days

   b. The respondent to the Supervisor Questionnaire must:

      (1) Command or supervise M.P. personnel

      (2) Have been in a command or supervisory position in the unit for 90 days. (Assign questionnaires proportionately among officers and NCO's.) .

6. Questionnaire Administration.

   a. Questionnaire. The questionnaire will be administered in a controlled environment. Persons participating in the survey will be allowed two hours to complete the questionnaire and will turn the questionnaire and answer sheets in to the questionnaire administrator prior to leaving the survey area. Individual questionnaires and their accompanying answer sheets will be kept together.

      See attached item for the procedure to be followed in administering the questionnaire.

   b. Supervisor Questionnaire. Supervisors selected as respondents for this questionnaire will be allowed to sign for the questionnaire and take it with them. They will complete the questionnaire and return it to the project officer within a time frame he specifies. This time frame must be compatible with the suspense date to the Military Police School.

7. Questionnaire Handling. Questionnaires and answer sheets become FOR OFFICIAL USE ONLY when completed. For ease of accounting, each questionnaire and its accompanying answer sheets are numbered. All questionnaires must be returned to the Military Police School whether they are used or not. Instructions for returning the questionnaires to the Military Police School are contained in the basic letter. If you have any problems or questions, contact (NOTE: Give name or names, address, and telephone number).

TO: PROJECT OFFICER ADMINISTERING QUESTIONNAIRE IN A CONTROLLED ENVIRONMENT

ADMINISTERING THE QUESTIONNAIRE

A-1. Preparation. A classroom or training room equipped with desks will provide the most ideal site for administering the questionnaire. Questionnaires, answer sheets, and two electrographic pencils should be issued to participants after everyone who is to take the questionnaire has arrived. This ensures that everyone starts together.

A-2. Instructions. The questionnaire administrator will present the following instructions.

a. "Is there anyone here who is not working in an M.P. duty position? Is there anyone here who has not been assigned to their present duties at least 90 days? If so, please leave at this time."

b. "Will everyone at this time please read the first page in the questionnaire which has been issued to you."

(Note to the administrator: It must be emphasized that your enthusiasm for this project or lack of it will be contagious. It is important that you demonstrate a positive attitude to the participants. Allow time for the first page to be read and underline the importance of the questionnaire with the following statement.)

"I would like to stress the importance of this questionnaire. The Military Police School wants to design training to fit the job in the field. You are the only people who can tell them what they need to know. Please think through each question and give your best answers."

c. "Turn to Part I, Biographical Information, and answer questions 1-13. When you have finished, lay your pencil on the desk so I will know when to proceed to the next step."

d. "Now read the instructions found in Part II."

(Note to the administrator: Allow reasonable time for everyone to finish before moving to the next step.)

"Are there any questions?"

e. "As you read in the instructions, there are nine answer sheets accompanying your questionnaire. Take the answer sheets and number them one through nine to correspond to the first nine sections in Part III of the questionnaire. If you do not have nine answer sheets, raise your hand—I have extra ones. Use a separate answer sheet for each section. Answer only the number of questions listed in each and move to the next section and answer sheet. It is not necessary to write your name, rank, the date, or course at the top of the answer sheet. Also, disregard the blocks marked score, grade, extra points, and social security number."

f. "Because of the size of this survey, these answer sheets will be read by machine. You must use the special pencils provided so that the machine can read the answers. When marking your answer, take care to fill the vertical rectangle outlining the letter as shown by the example on page 4 of the instructions. Also, please be sure not to make any stray marks on the answer sheets. Finally, do not fold the answer sheets."

g. "All answers must be based on your experience in this your present unit. Do not call on experience in previous units. This means that if you do not perform a particular task in your present unit, you must mark 'do not perform this task' on your answer sheet."

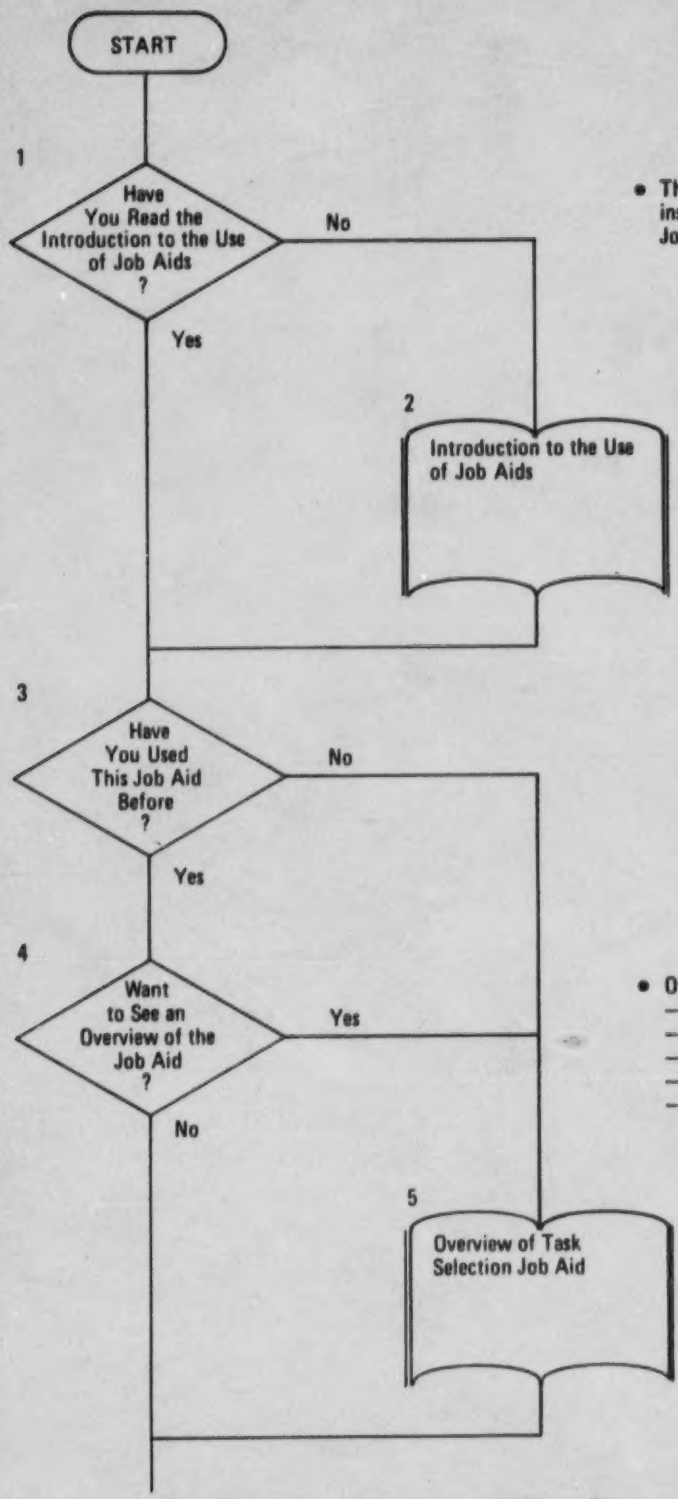
h. "You may begin answering Part III. Remember Section ten, the written section. When you finish answering all questions, insert your answer sheets into the questionnaire and turn them in to me. You may leave when you are finished. Are there any questions?"

A-3. Conclusion. After everyone has taken the questionnaire, ensure that all questionnaires and answer sheets are accounted for. Collect the pencils provided so that they may be returned to the Military Police School along with the questionnaires and answer sheets.

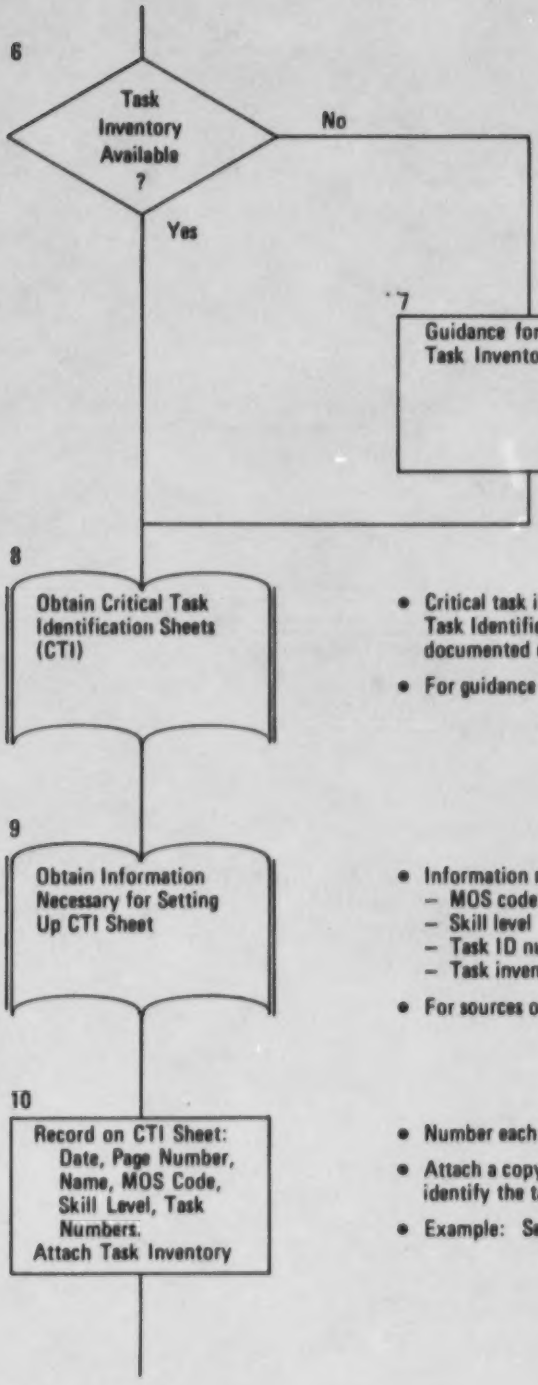
JOB AIDS:
DESCRIPTIVE AUTHORING FLOWCHARTS

ISD I.2 Select Tasks for Training

This is the 1st in a series of ISD Job Aids for use in instructional design and development. This volume will direct you to specific guidance, examples, and references provided in the supplementary manual "Job Aid for Selecting Tasks for Training ISD I.2." If you do not have the supplementary manual, request it from your supervisor.



- This introduction provides the user with instruction on the basic structure of the Job Aids and guidance for their use.
- Refer to Introduction.
- Overview includes:
  - Goal
  - Objectives
  - Major steps in process
  - Products
  - Worksheets used
- For detailed overview see Manual, page A-4.



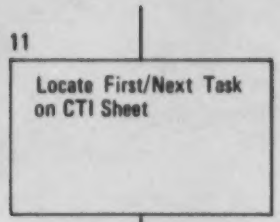
- Task inventory includes all tasks performed in this skill level.

- Task inventory should be available as output from ISD I.1 Analyze Job.
- If procedures for listing tasks by skill level were not complete, see persons responsible for compiling task list.
- When list has been obtained return to Manual, ISD I.2 Select Tasks for Training, Block 6, page A-11.

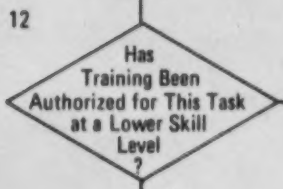
- Critical task identification and final selections are recorded on the Critical Task Identification Sheet (CTI). The CTI Sheet, therefore, provides a documented record for these decisions and the basis for each.
- For guidance in obtaining CTI Sheets, see Manual, page A-12.

- Information needed for "setting up" the CTI Sheet includes the following:
  - MOS code
  - Skill level
  - Task ID numbers
  - Task inventory
- For sources of information see Manual, page A-13.

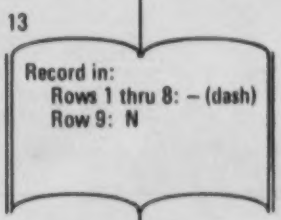
- Number each CTI Sheet (Use as many as necessary to list all the tasks).
- Attach a copy of the task inventory to the first CTI Sheet to help you identify the tasks to which the numbers refer.
- Example: See Manual, page A-14.



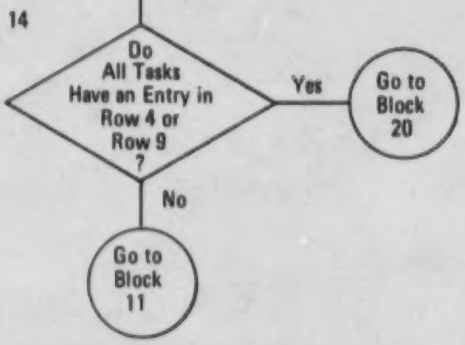
- This block begins the process of initial selection of tasks for training.



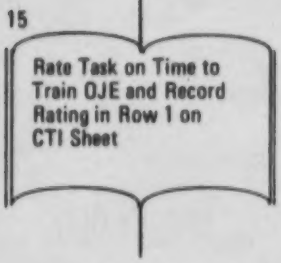
- Certain tasks may be performed in more than one skill level.
- CTI Sheets from lower skill levels are checked to determine if training for the task is authorized in a lower skill level, (not necessary if this is Skill level 1).



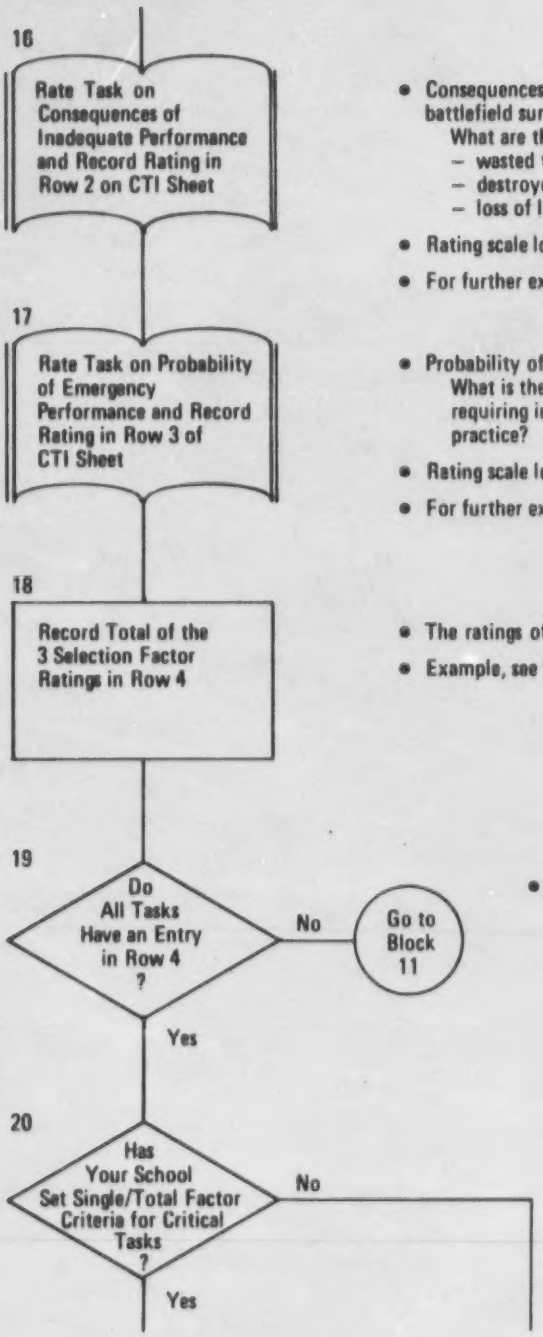
- Tasks which are being trained at a lower skill level are not considered for training at this skill level.
- For purpose and example, see Manual, page A-16.



- Have all tasks been examined to determine:
  - task value (number in Row 4) or
  - if training is authorized at a lower skill level (dash in Row 4 and N in Row 9).



- Time to Train OJE means: How much time is needed for the soldier to learn to perform this task without a formal training program?
- Rating scale located on bottom of CTI Sheets.
- For further explanation and sources of information, see Manual, page A-17.


16
Rate Task on Consequences of Inadequate Performance and Record Rating in Row 2 on CTI Sheet
17
Rate Task on Probability of Emergency Performance and Record Rating in Row 3 of CTI Sheet
18
Record Total of the 3 Selection Factor Ratings in Row 4
19
Do All Tasks Have an Entry in Row 4 ?
No
Go to Block 11
Yes
20
Has Your School Set Single/Total Factor Criteria for Critical Tasks ?
No
Yes

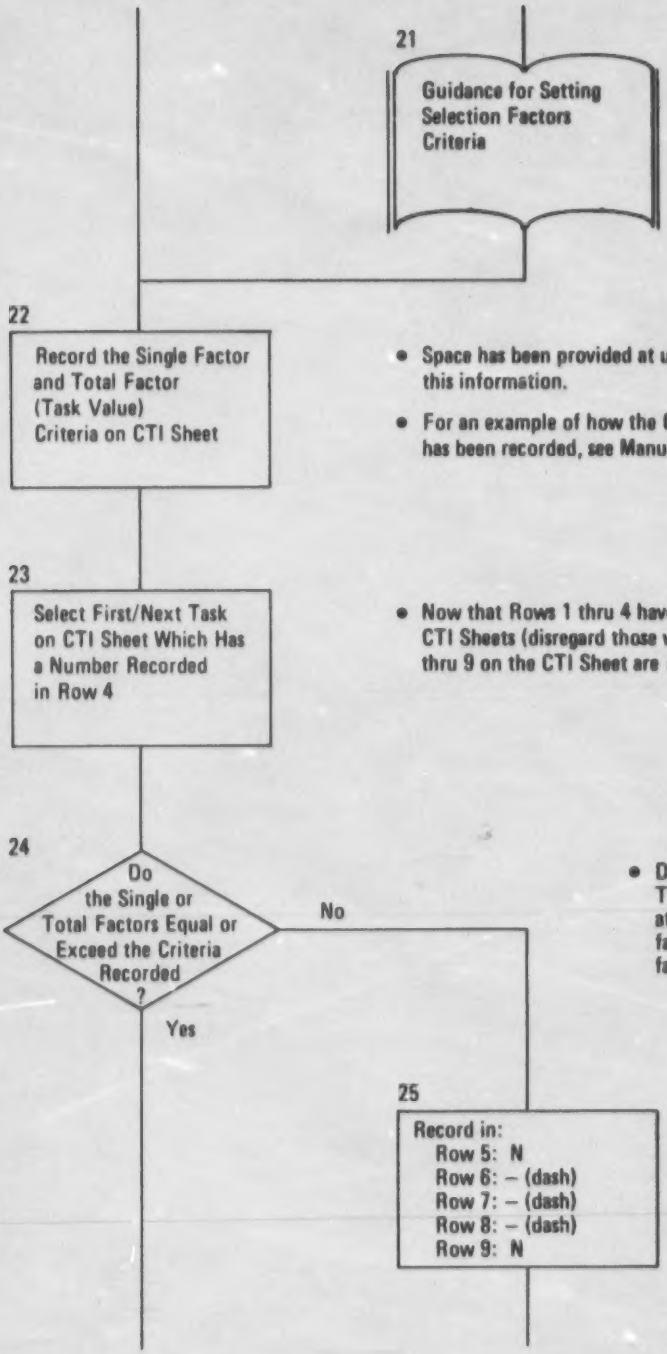
- Consequences of Inadequate Performance on mission accomplishment and/or battlefield survival means:
  What are the results of inadequate performance in terms of
  - wasted time, inefficiency
  - destroyed materials/equipment
  - loss of lives/injury?
- Rating scale located on bottom of CTI Sheet.
- For further explanation and sources of information, see Manual, page A-20.

- Probability of Emergency Performance means:
  What is the chance that task performance will occur under conditions requiring instant and effective action with no time for preparation or practice?
- Rating scale located on bottom of CTI Sheets.
- For further explanation and sources of information, see Manual, page A-23.

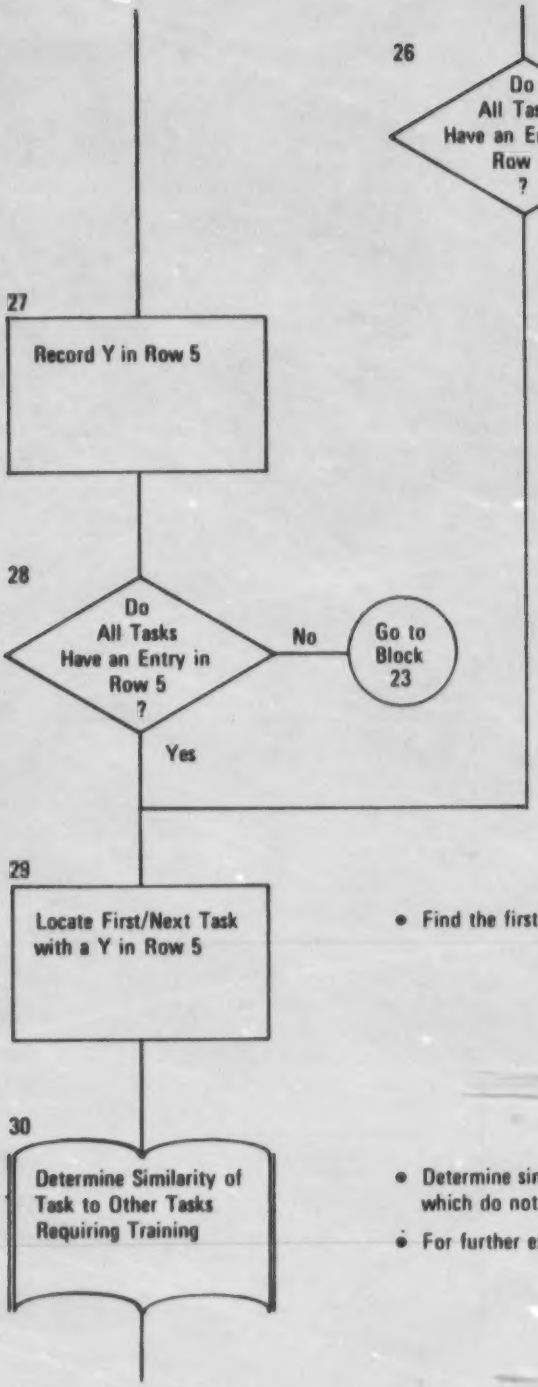
- The ratings of all 3 factors are added together.
- Example, see Manual, page A-26.

- Is there either a number or a dash recorded in Row 4?

- Has your school given guidance on what number ratings are required (both single factor and total factor) to identify a critical task?


21
Guidance for Setting Selection Factors Criteria
22
Record the Single Factor and Total Factor (Task Value) Criteria on CTI Sheet
23
Select First/Next Task on CTI Sheet Which Has a Number Recorded in Row 4
24
Do the Single or Total Factors Equal or Exceed the Criteria Recorded ?
No
Yes
25
Record in:
Row 5: N
Row 6: – (dash)
Row 7: – (dash)
Row 8: – (dash)
Row 9: N

- For guidance in setting the selection factors criteria, see Manual, page A-28.
- Space has been provided at upper left corner of CTI Sheet for this information.
- For an example of how the CTI Sheet looks when this information has been recorded, see Manual, page A-29.
- Now that Rows 1 thru 4 have been filled in for each task on the CTI Sheets (disregard those with a dash in Row 4) questions 5 thru 9 on the CTI Sheet are considered.
- Do the 3 ratings add up to, or exceed the Total Factor (Task Value) Criterion recorded at the top of the CTI Sheet; or is any single factor equal to or greater than the single factor criterion?
- N in Row 5 means "no training required".
- Dashes in Rows 6, 7, 8 mean "does not apply".
- N in Row 9 means "no training authorized".
- For example, see Manual, page A-31.



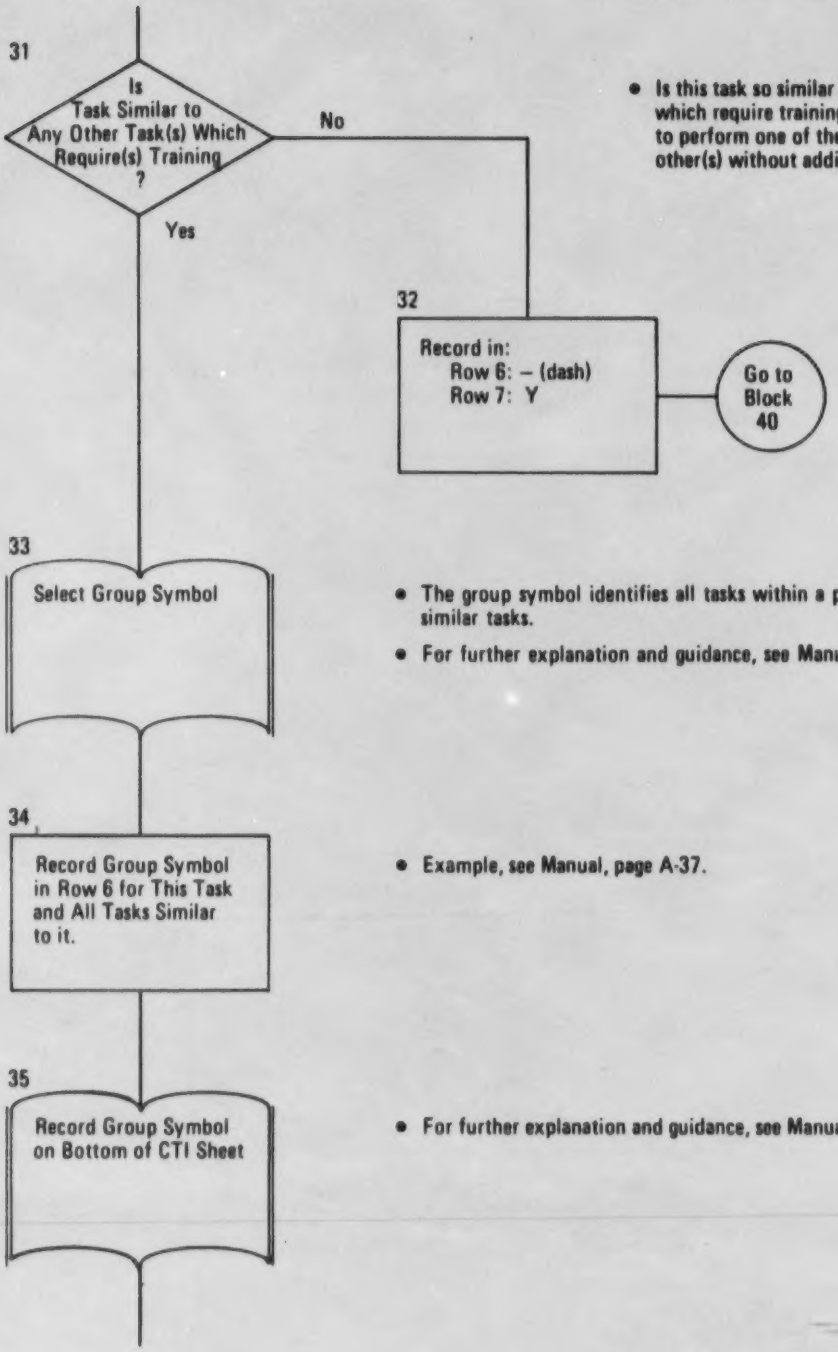
- Do all tasks have an N, Y, or – (dash) in Row 5?

- Y in Row 5 means "yes, training required".
- Example, see Manual, page A-32.

- Do all tasks have an N, Y, or – (dash) in Row 5?

- Find the first/next task that has a "Y" under it in Row 5 – Training Required.

- Determine similarity of task to other tasks recorded as "Y" in Row 5 which do not have an entry in Row 6 on CTI Sheet.
- For further explanation, see Manual, page A-34.



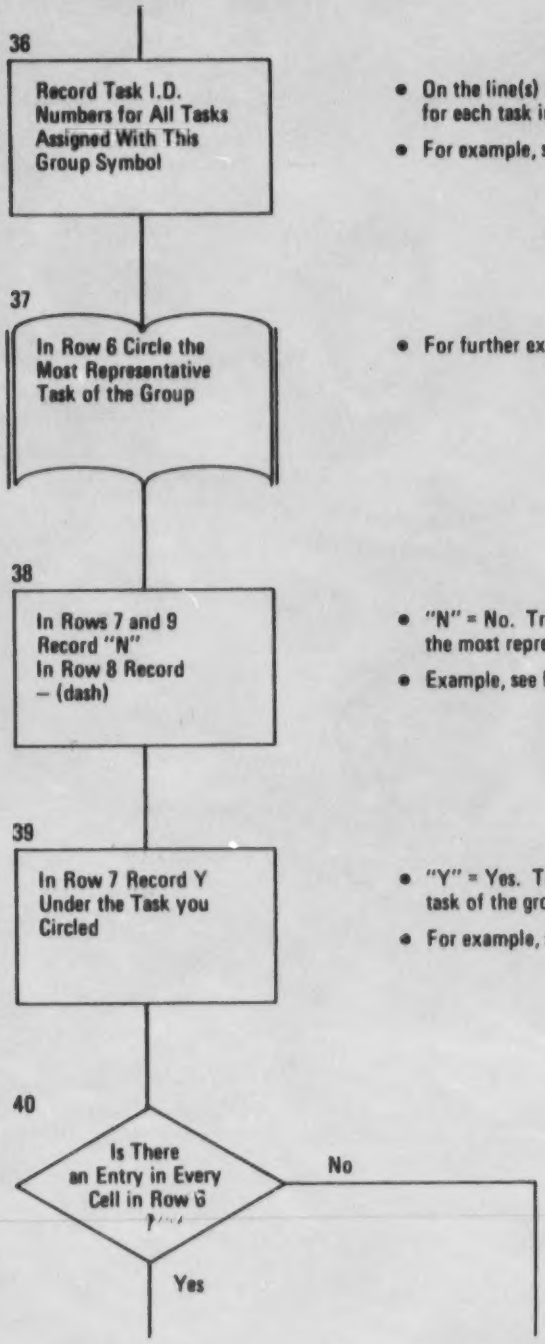
- Is this task so similar to one or more other tasks which require training that if the soldier were trained to perform one of them he could easily perform the other(s) without additional formal training?

- – (dash) in Row 6 means "does not apply".
- Y in Row 7 means "yes, training recommended".
- For example, see Manual, page A-35.

- The group symbol identifies all tasks within a particular group of similar tasks.
- For further explanation and guidance, see Manual, page A-36.

- Example, see Manual, page A-37.

- For further explanation and guidance, see Manual, page A-38.


36
Record Task I.D. Numbers for All Tasks Assigned With This Group Symbol
37
In Row 6 Circle the Most Representative Task of the Group
38
In Rows 7 and 9 Record "N" In Row 8 Record – (dash)
39
In Row 7 Record Y Under the Task you Circled
40
Is There an Entry in Every Cell in Row 6
No
Yes

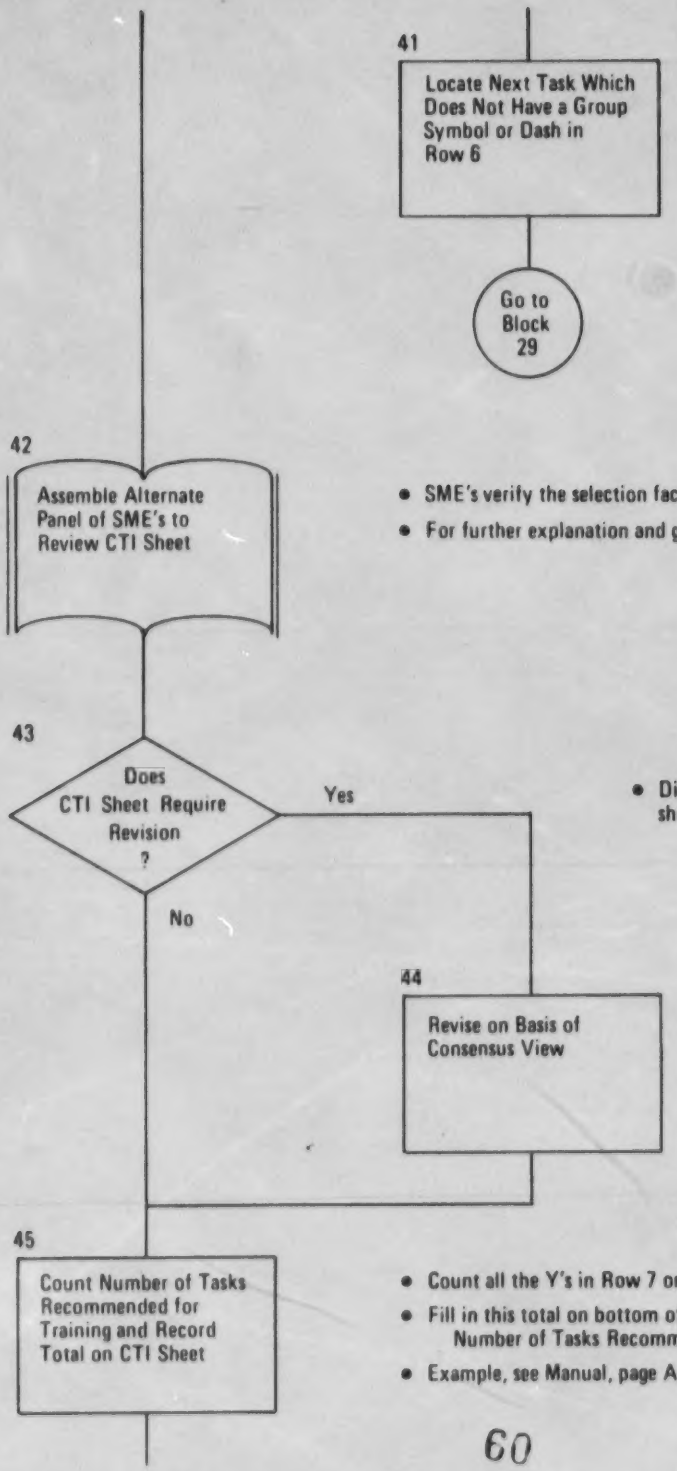
- On the line(s) opposite the Group Symbol, record the task I.D. numbers for each task in this group.
- For example, see Manual, page A-39.

- For further explanation and example, see Manual, page A-40.

- "N" = No. Training is not recommended for this task because this is not the most representative task of the group.
- Example, see Manual, page A-41.

- "Y" = Yes. Training is recommended because this is the most representative task of the group.
- For example, see Manual, page A-42.

- Is there a Y or N or – (dash) in every cell of Row 6 on each CTI Sheet?

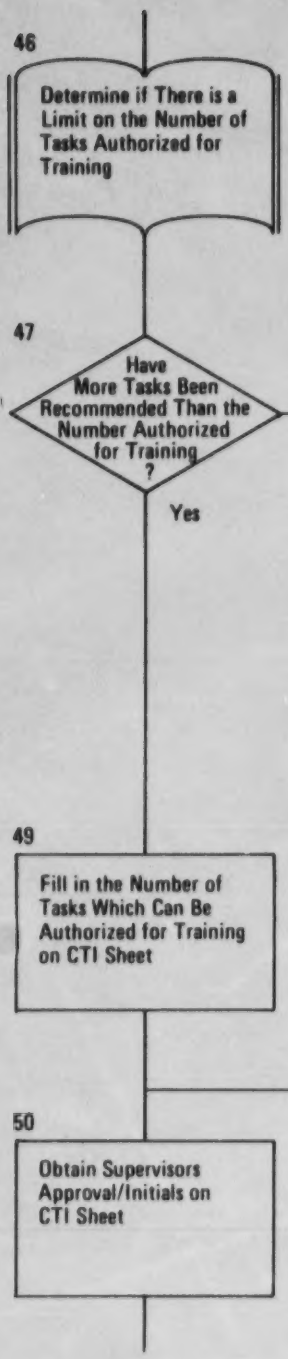

41
Locate Next Task Which Does Not Have a Group Symbol or Dash in Row 6
Go to Block 29
42
Assemble Alternate Panel of SME's to Review CTI Sheet
43
Does CTI Sheet Require Revision ?
Yes
No
44
Revise on Basis of Consensus View
45
Count Number of Tasks Recommended for Training and Record Total on CTI Sheet

- The next task is examined for similarities.

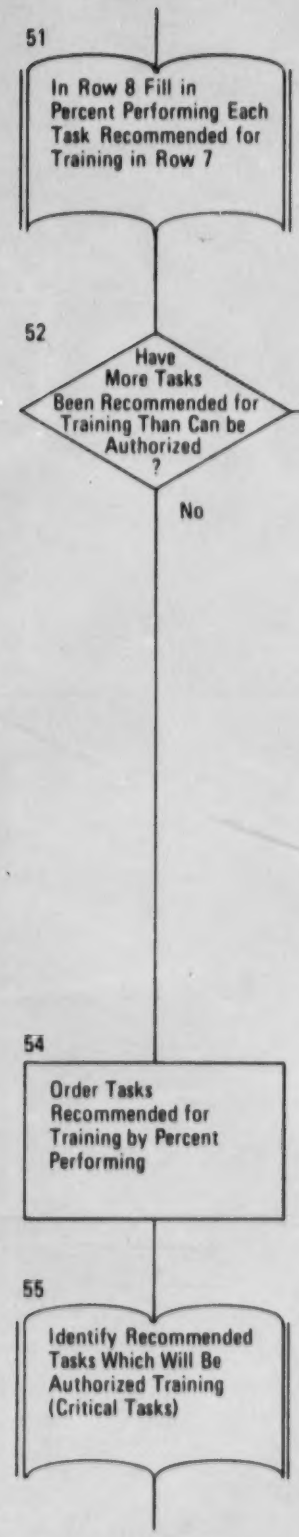
- SME's verify the selection factor ratings and task similarity judgements.
- For further explanation and guidance, see Manual, page A-44.

- Did the panel of SME's agree that changes should be made?

- Count all the Y's in Row 7 on each CTI Sheet.
- Fill in this total on bottom of the first CTI Sheet: Number of Tasks Recommended for Training.
- Example, see Manual, page A-45.


46
Determine if There is a Limit on the Number of Tasks Authorized for Training
47
Have More Tasks Been Recommended Than the Number Authorized for Training ?
No
Yes
48
Record "No Limit" in Space Marked Number of Tasks Authorized
49
Fill in the Number of Tasks Which Can Be Authorized for Training on CTI Sheet
50
Obtain Supervisors Approval/Initials on CTI Sheet

- For further information and guidance, see Manual, page A-46.
- The number of tasks recommended is compared with the number authorized for training (if there is such a number). If there is no limit, take the "No" branch.
- For example, see Manual, page A-47.
- The number of tasks which can be authorized for training is filled in the space marked: Number of Tasks Authorized, on bottom of CTI Sheet.
- For example, see Manual, page A-48.
- CTI Sheets are submitted to supervisor for approval of the selections made thus far.
- Supervisors initials should be placed on bottom of CTI Sheet.
- For example, see Manual, page A-49.


51
In Row 8 Fill in Percent Performing Each Task Recommended for Training in Row 7
52
Have More Tasks Been Recommended for Training Than Can be Authorized ?
Yes
No
53
In Row 9 Record "Y" Under Each Task Which Was Recommended for Training in Row 7
Go to Block 57
54
Order Tasks Recommended for Training by Percent Performing
55
Identify Recommended Tasks Which Will Be Authorized Training (Critical Tasks)

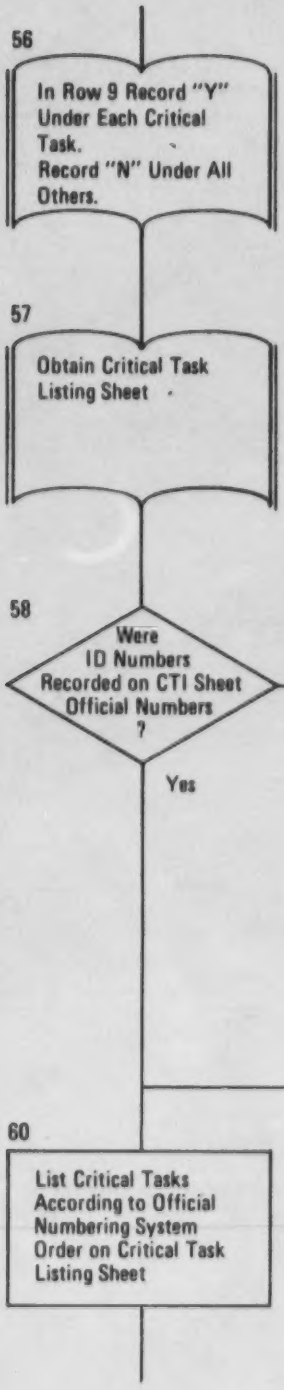
- This information will help organize the list of recommended tasks so that those performed by the larger numbers of soldiers will be given priority, if more tasks have been selected for training than can be authorized.
- Even if all the tasks recommended can be authorized for training, this information will be needed in ISD I.5 Select Instructional Setting for the task.
- For sources and further guidance, see Manual, page A-50.

- The Number of Tasks Recommended and the Number of Tasks Authorized are compared.

- These are critical tasks.
- For example, see Manual, page A-52.

- The ID Numbers and Percent Performing each task recommended for training are recorded on the reverse side of the CTI Sheet from highest performing to lowest performing.
- Ordering task by percent performing helps prioritize the list.
- For example, see Manual, page A-53.

- For further explanation and guidance, see Manual, page A-55.


56
In Row 9 Record "Y" Under Each Critical Task.
Record "N" Under All Others.
57
Obtain Critical Task Listing Sheet
58
Were ID Numbers Recorded on CTI Sheet Official Numbers ?
No
Yes
59
Obtain Official Task Numbers by Following Guidance in TRADOC Circular 351-28
60
List Critical Tasks According to Official Numbering System Order on Critical Task Listing Sheet

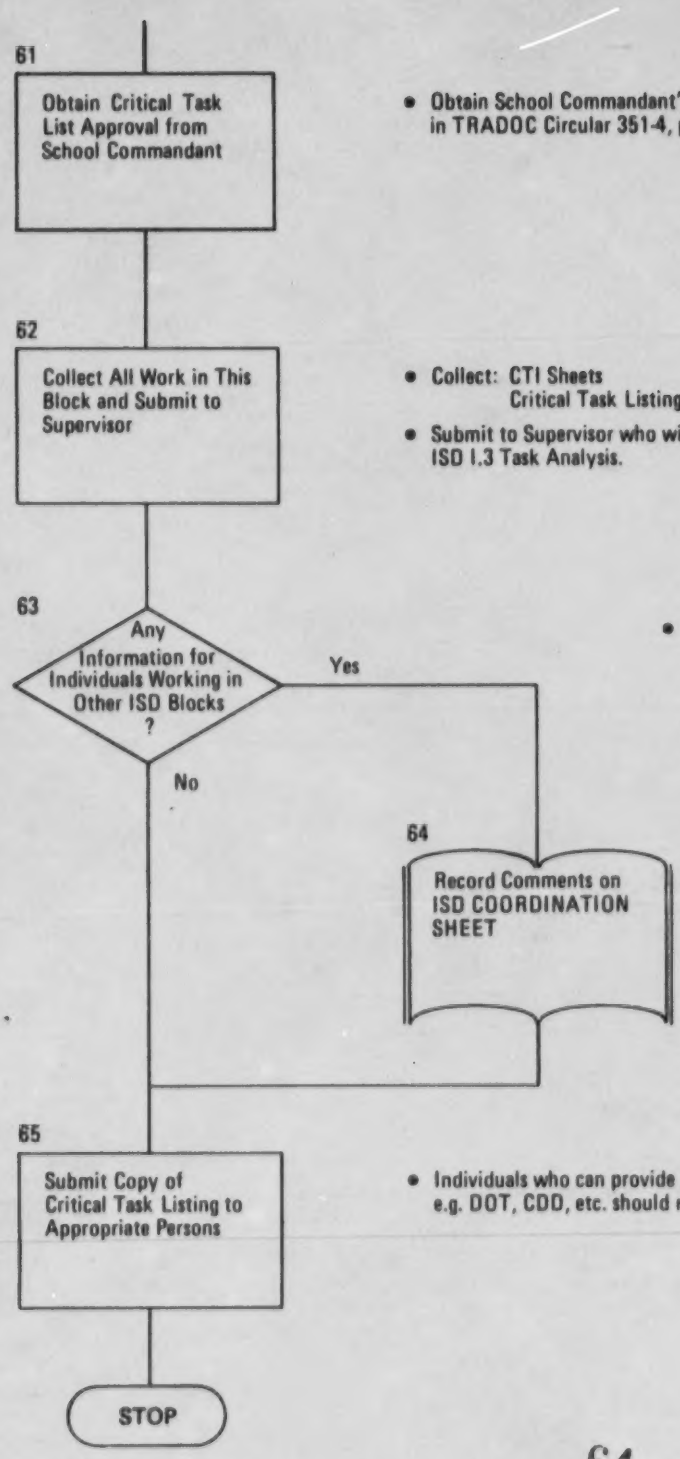
- Row 9 is on the front side of the CTI Sheet.
- For further explanation and guidance, see Manual, page A-57.

- The Critical Task Listing Sheet is the document on which all the tasks selected for training are recorded. This Critical Task Listing will be passed on to those working in subsequent ISD Blocks.
- For an example of a completed task listing sheet, and guidance in obtaining the form, see Manual, page A-59.

- Were numbers assigned to tasks as prescribed by TRADOC guidance in TRADOC Circular 351-28?

- TRADOC Circular 351-28; paragraph F, pages 16-18, explains the task numbering system.

- Task numbers were listed in order of percent performing on the reverse side of the CTI Sheet. Here they are listed in order of their official numbers.
- Transfer Percent Performing figures to Critical Task Listing Sheet.
- Example, see Manual, page A-62.



- Obtain School Commandant's Review, Comments and Approval as directed in TRADOC Circular 351-4, paragraph 3-1632d, page 17.

- Collect: CTI Sheets
  Critical Task Listing Sheets.
- Submit to Supervisor who will pass it along to individuals working in ISD I.3 Task Analysis.

- During the critical task selection process information may have been obtained that would be useful to persons who performed activities that fed into this process. Similarly, information may have been obtained that would be useful to persons who will be engaged in the ISD Step 3 that follow this one.

- Comments are recorded and submitted to appropriate persons.
- For further guidance, see Manual, page A-6E

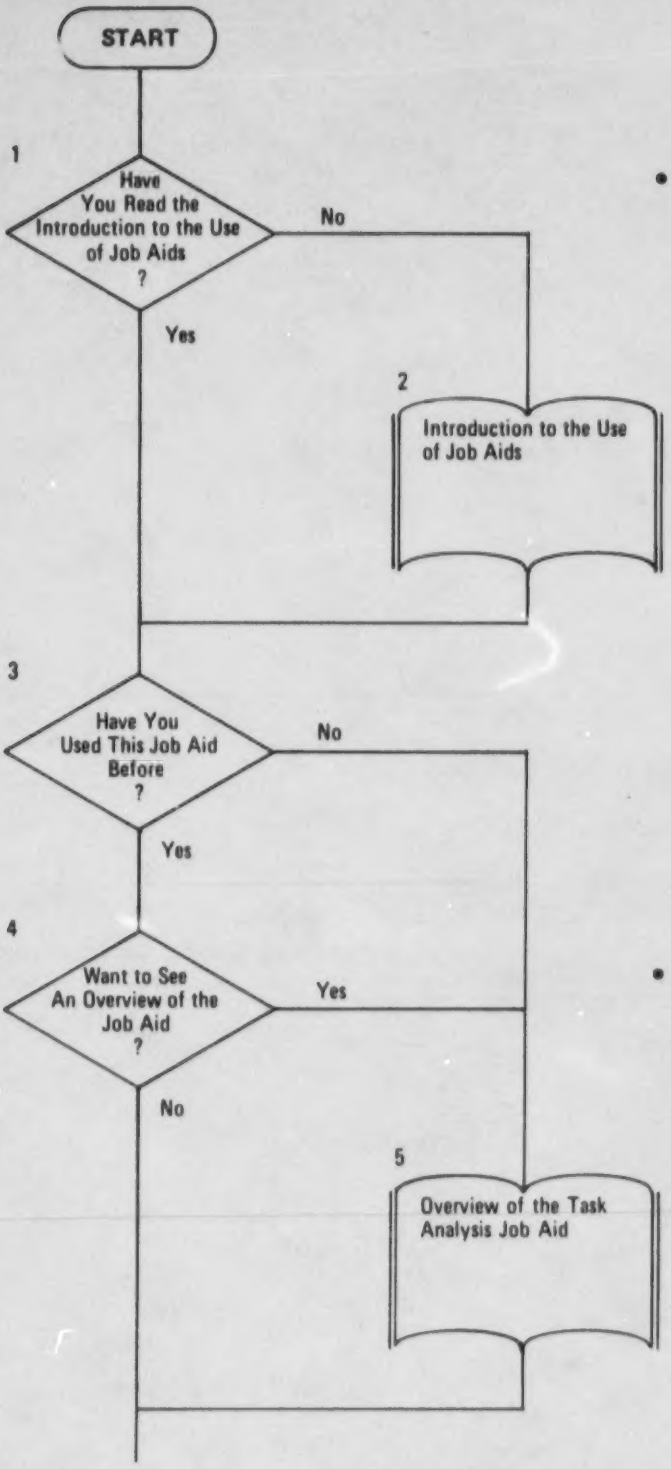
- Individuals who can provide useful input at this stage of the ISD process, e.g. DOT, CDD, etc. should receive a copy of the Critical Task Listing.

64

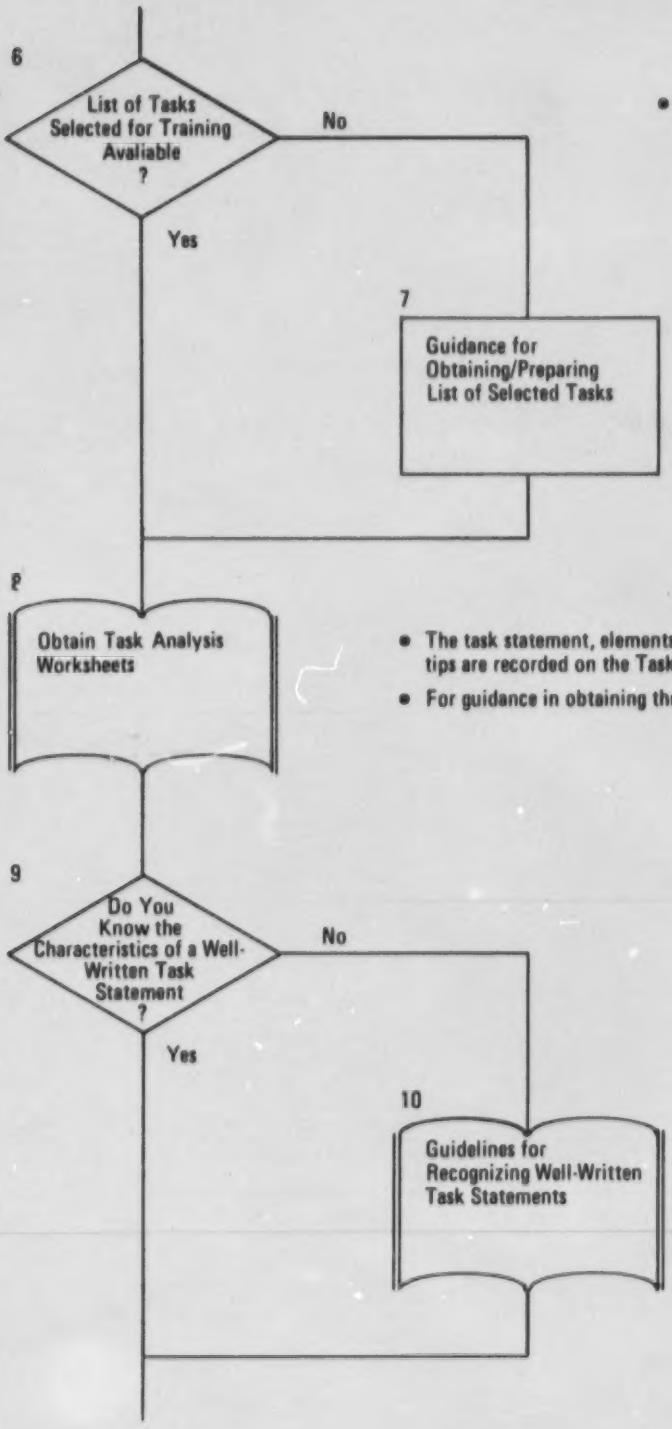
JOB AIDS:
DESCRIPTIVE AUTHORING FLOWCHARTS

ISD I.3 Conduct Task Analysis

This is the 2nd in a series of ISD Job Aids for use in instructional design and development. This volume will direct you to specific guidance, examples, and references provided in the supplementary manual "Job Aid for Conducting Task Analysis ISD I.3." If you do not have the supplementary manual, request it from your supervisor.



- This introduction provides the user with instruction on the basic structure of the Job Aids and quidance for their use.
- Refer to Introduction.
- Overview includes:
  - Goal
  - Objectives
  - Products
  - Major steps in process
  - Worksheet Used
- For detailed overview, see Manual, page B-4.

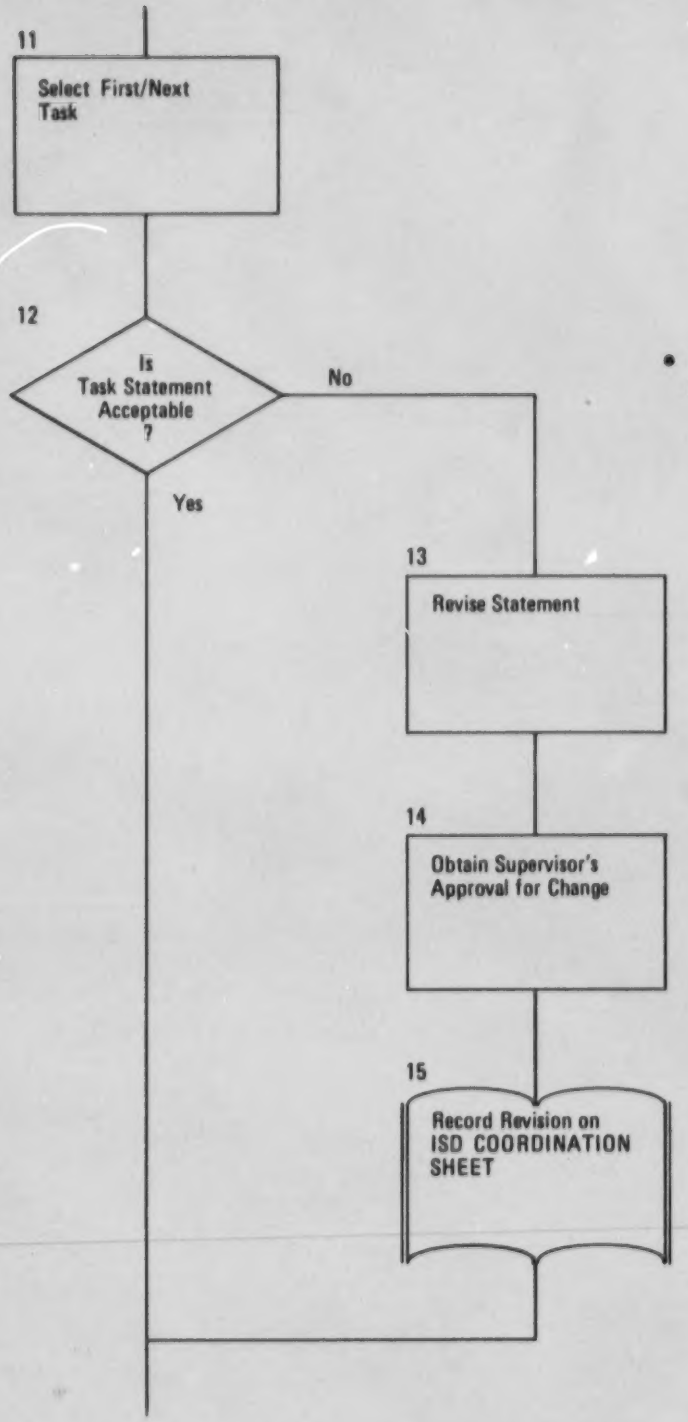


- Task listing includes a task selected for training grouped by skill level.

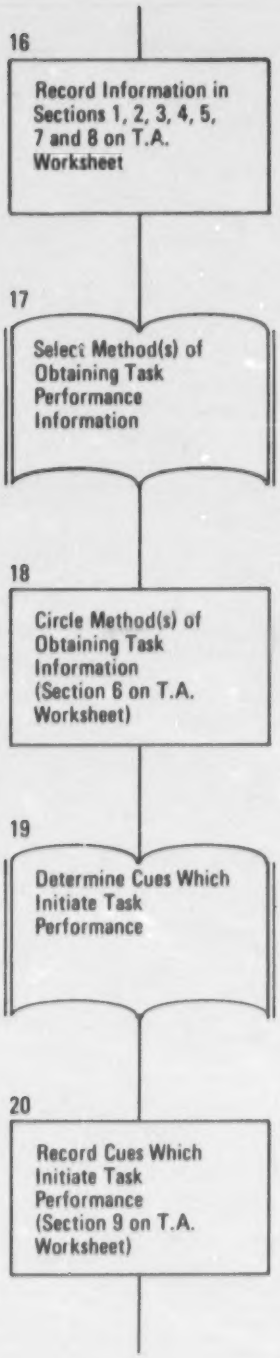
- List of tasks selected for training should be available as output from ISD I.2, Select Tasks for Training.
- If procedures for selecting tasks were not complete, go to Job Aids: Descriptive Authoring Flowcharts, page A-3.
- When list has been obtained return to Manual, ISD I.3 Conduct Task Analysis, Block 6.

- The task statement, elements, conditions cues, standard, references and training tips are recorded on the Task Analysis (T.A.) Worksheet
- For guidance in obtaining the T.A. Worksheet, see Manual, page B-13.

- Guidelines contain information concerning:
  - Correct format
  - Completeness
  - Performance boundaries
  - Observability
  - Measurability
  - Independence
- For further explanation, see Manual, page B-14.



- Has the task been stated clearly and specifically according to the guidelines given in Block 10?
- Statement is revised according to the guidelines given in Block 10.
- Supervisor should be consulted before actual change is recorded.
- The ISD COORDINATION SHEET permits task listing to be updated.
- For further guidance, see Manual, page B-24.


16
Record Information in Sections 1, 2, 3, 4, 5, 7 and 8 on T.A. Worksheet
17
Select Method(s) of Obtaining Task Performance Information
18
Circle Method(s) of Obtaining Task Information (Section 6 on T.A. Worksheet)
19
Determine Cues Which Initiate Task Performance
20
Record Cues Which Initiate Task Performance (Section 9 on T.A. Worksheet)

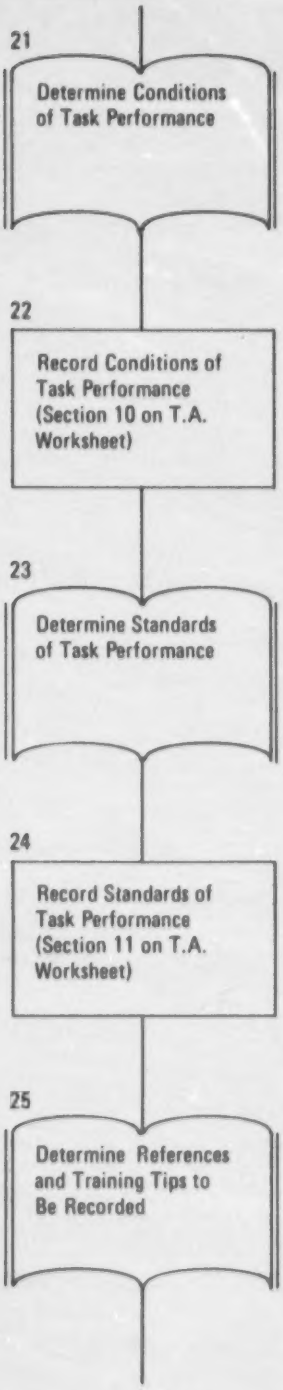
- Information required on Task Analysis Worksheet:
  - MOS
  - Skill level
  - Todays date
  - Page number
  - Analyst's name and office symbol
  - Task number
  - Task statement
- For example, see Manual, page B-26.

- Methods of obtaining task performance information include:
  - Review of Task Information
  - Consensus Group
  - On-Site Interview/Observation
  - Self-Performance
  - Other
- For further explanation, see Manual, page B-27.

- For example, see Manual, page B-29.

- These cues signal the beginning of a task.
- For further explanation and guidance in identifying cues, see Manual, page B-30.

- For example, see Manual, page B-31.


21
Determine Conditions of Task Performance
22
Record Conditions of Task Performance (Section 10 on T.A. Worksheet)
23
Determine Standards of Task Performance
24
Record Standards of Task Performance (Section 11 on T.A. Worksheet)
25
Determine References and Training Tips to Be Recorded

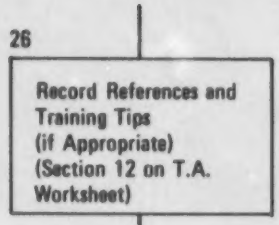
- This conditions statement establishes the physical setting in which the task is performed, and the necessary equipment and supplies.
- For further explanation and guidance in identifying conditions, see Manual, page B-32.

- For example, see Manual, page B-34.

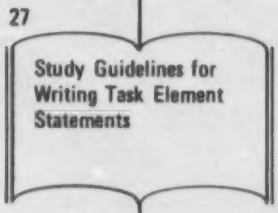
- This task standard is a statement of how well the task must be performed.
- For further explanation and guidance, see Manual, page B-35.

- For example, see Manual, page B-38.

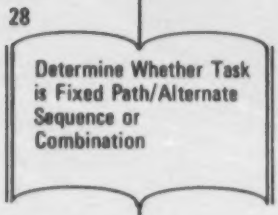
- References include: TMs, FMs, other sources of task performance information.
- Training tips include: Rules of thumb, safety precautions, etc.
- For further explanation, see Manual, page B-39.



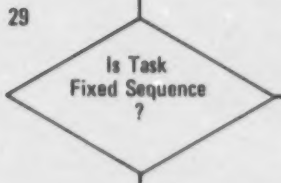
- For example, see Manual, page B-41.



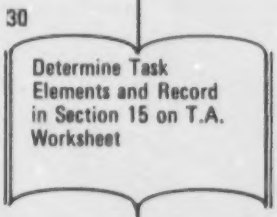
- This section begins the process of describing how the task is actually performed.
- For guidance in writing task element statements, see Manual, page B-42.



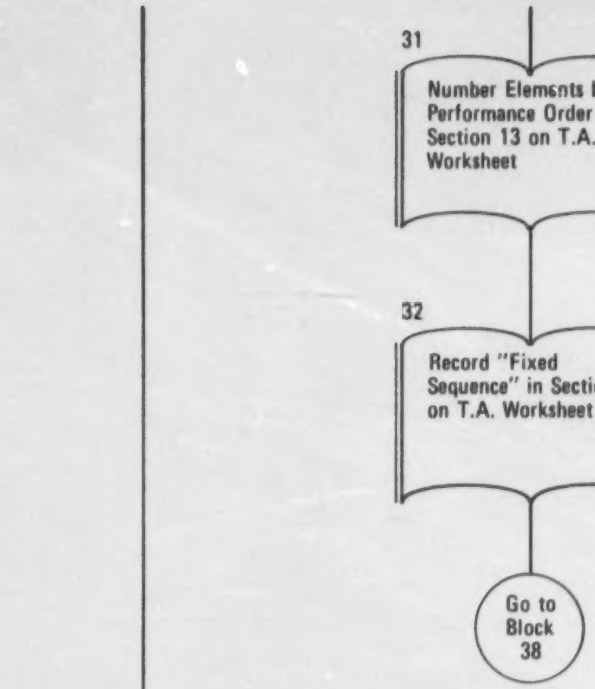
- Fixed path tasks are always performed in the same procedural sequence.
- Alternate sequence tasks are performed in a non-procedural sequence.
- Combination tasks have elements which are performed in both procedural and non-procedural sequence.
- For further explanation, see Manual, page B-43.



- Are the task elements always performed in the same procedural sequence?



- Task elements are the procedural steps in the performance of a task.
- For guidance in determining and recording task elements, see Manual, page B-44.


31
Number Elements by Performance Order in Section 13 on T.A. Worksheet
32
Record "Fixed Sequence" in Section 16 on T.A. Worksheet
Go to Block 38
33
Determine Task Elements
34
Record an Action Statement for Each Element
35
Number Elements by Performance Order (Section 13 on T.A. Worksheet)

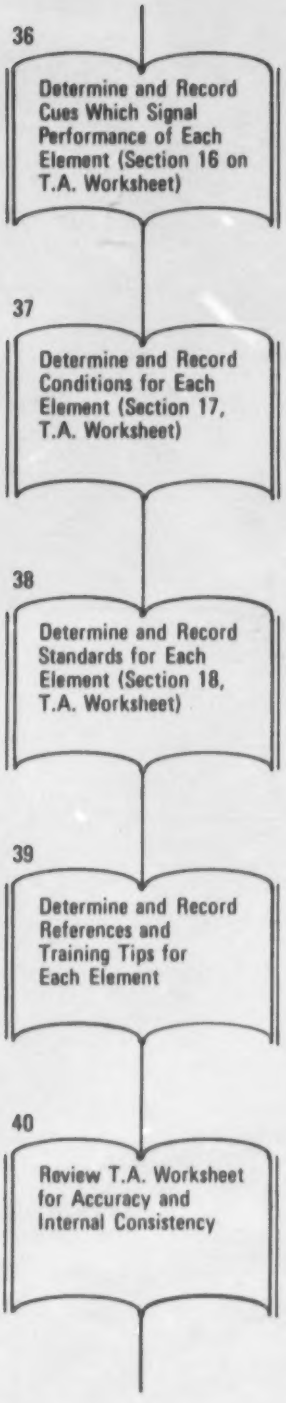
- For further explanation and guidance in numbering elements, see Manual, page B-46.

- In a fixed sequence task the initiating cue for an element is the completion of the previous step, or the task cue itself. Therefore, cues need not be recorded for individual elements.
- For guidance, see Manual, page B-48.

- The task is alternate path or combination.
- All task elements must be identified even though they may not be included in each task performance.
- For further explanation, see Manual, page B-49.

- Action statements are recorded in the order in which they are most frequently performed.
- For further explanation and guidance, see Manual, page B-51.

- For explanation and guidance in numbering elements, see Manual, page B-52.


36
Determine and Record Cues Which Signal Performance of Each Element (Section 16 on T.A. Worksheet)
37
Determine and Record Conditions for Each Element (Section 17, T.A. Worksheet)
38
Determine and Record Standards for Each Element (Section 18, T.A. Worksheet)
39
Determine and Record References and Training Tips for Each Element
40
Review T.A. Worksheet for Accuracy and Internal Consistency

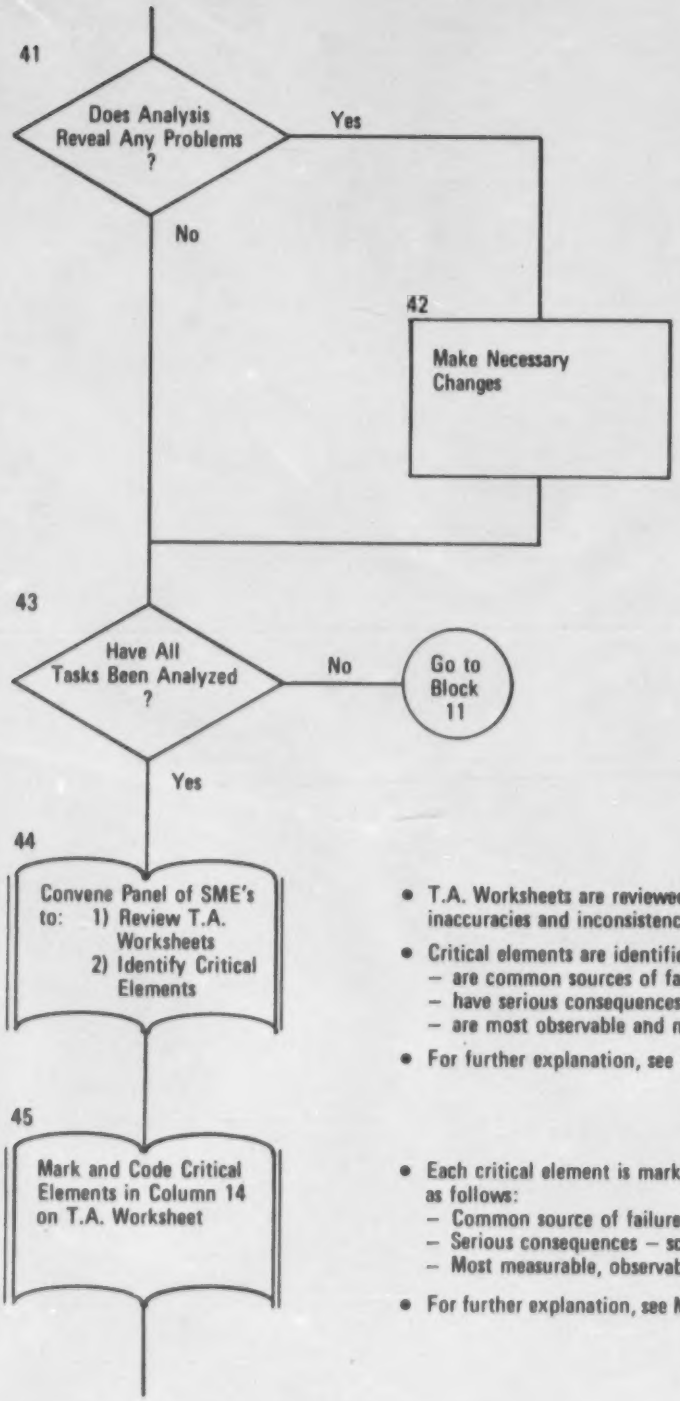
- For further explanation and guidance in determining and recording cues, see Manual, page B-53.

- For further explanation and guidance in determining and recording element conditions, see Manual, page B-55.

- For guidance in determining and recording standards, see Manual, page B-57.

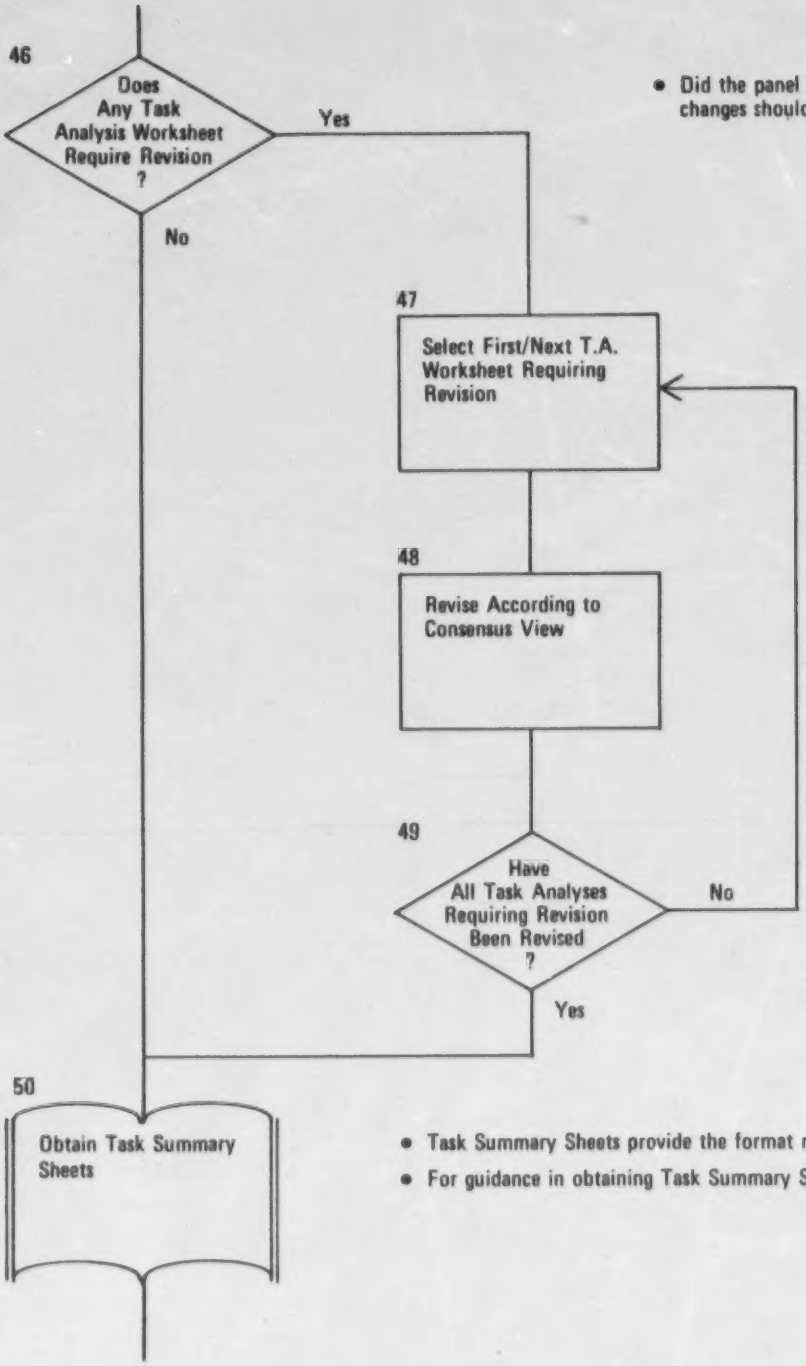
- For further explanation and guidance in determining and recording references and training tips, see Manual, page B-59.

- The task analyst's review will disclose any omissions, inaccuracies and inconsistencies in the task and task element discriptions.
- For guidance in reviewing the T.A. Worksheet, See Manual, page B-60.



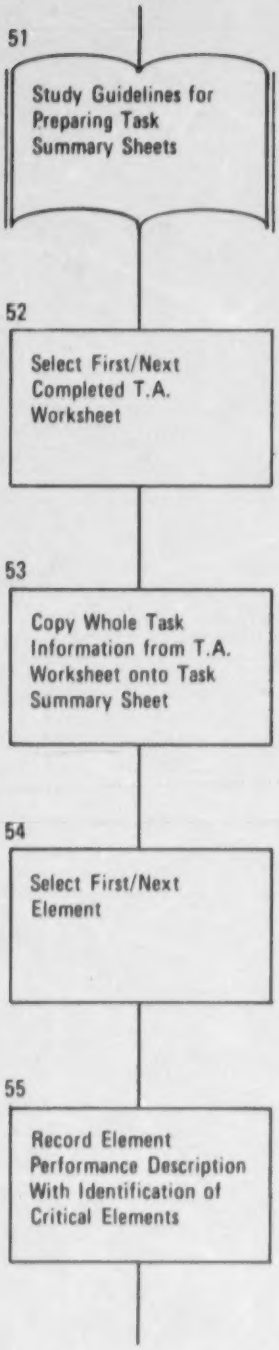
- T.A. Worksheets are reviewed by subject matter experts for omissions, inaccuracies and inconsistencies.
- Critical elements are identified as those which:
  - are common sources of failure.
  - have serious consequences of misperformance.
  - are most observable and measurable.
- For further explanation, see Manual, page B-63.

- Each critical element is markes with an asterisk (*) and coded in column 14 as follows:
  - Common source of failure – csf
  - Serious consequences – sc
  - Most measurable, observable indicator – moi
- For further explanation, see Manual, page B-65.



- Did the panel of SME's agree that one or more changes should be made?

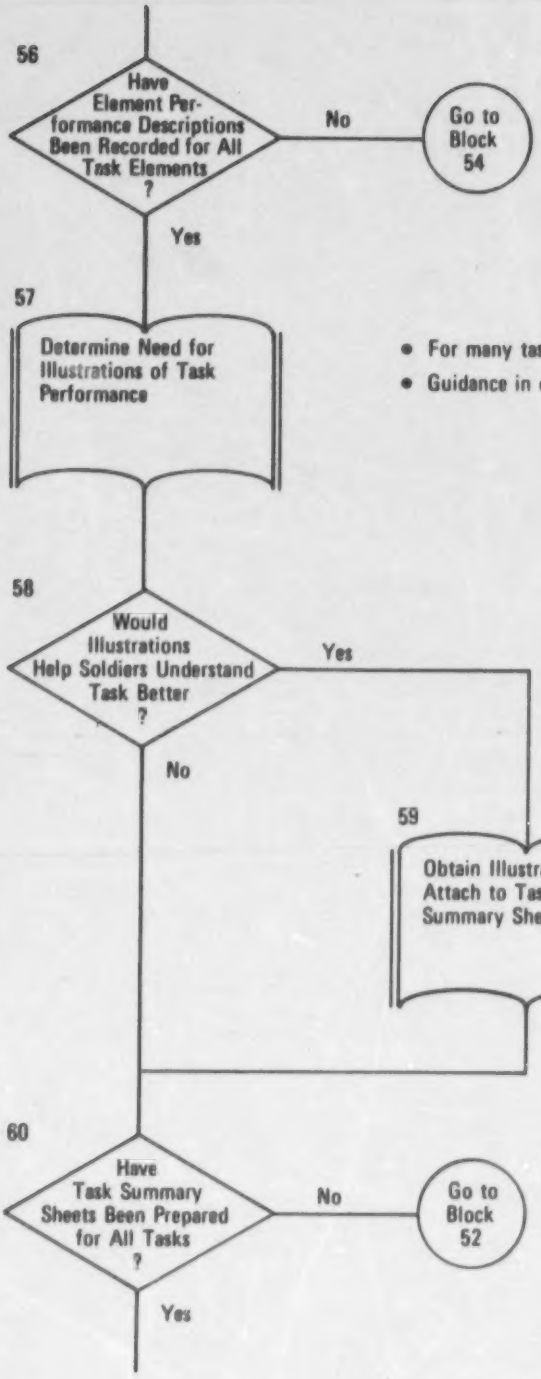
- Task Summary Sheets provide the format required for the Soldiers Manual.
- For guidance in obtaining Task Summary Sheets, see Manual, page B-66.


51
Study Guidelines for Preparing Task Summary Sheets
52
Select First/Next Completed T.A. Worksheet
53
Copy Whole Task Information from T.A. Worksheet onto Task Summary Sheet
54
Select First/Next Element
55
Record Element Performance Description With Identification of Critical Elements

- Guidelines provide detailed guidance for completing Task Summary Sheets.
- For information, see Manual, page B-68.

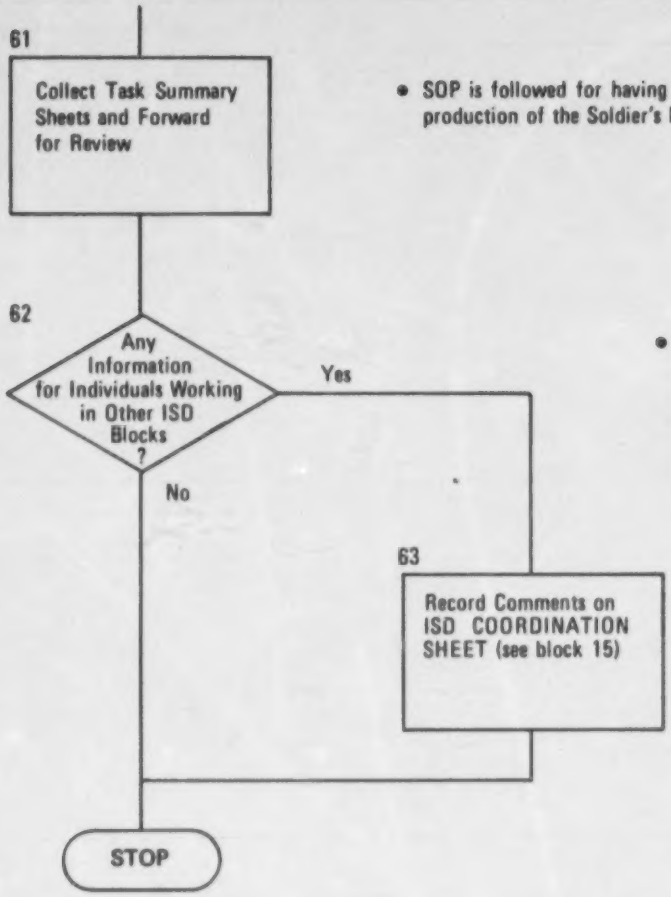
- Whole task information includes:
  - task number
  - conditions
  - standards
  - references
- For example, see Manual, page B-71.

- Critical elements are identified on the T.A. Worksheet with asterisks (*).
- For example, see Manual, page B-73.



- For many tasks illustrations may help the soldier understand the task better.
- Guidance in determining need for illustrations is given in Manual, page B-76.

- Sources of illustrations are given in the Manual, page B-87.



- SOP is followed for having Task Summary Sheets reviewed before production of the Soldier's Manual.

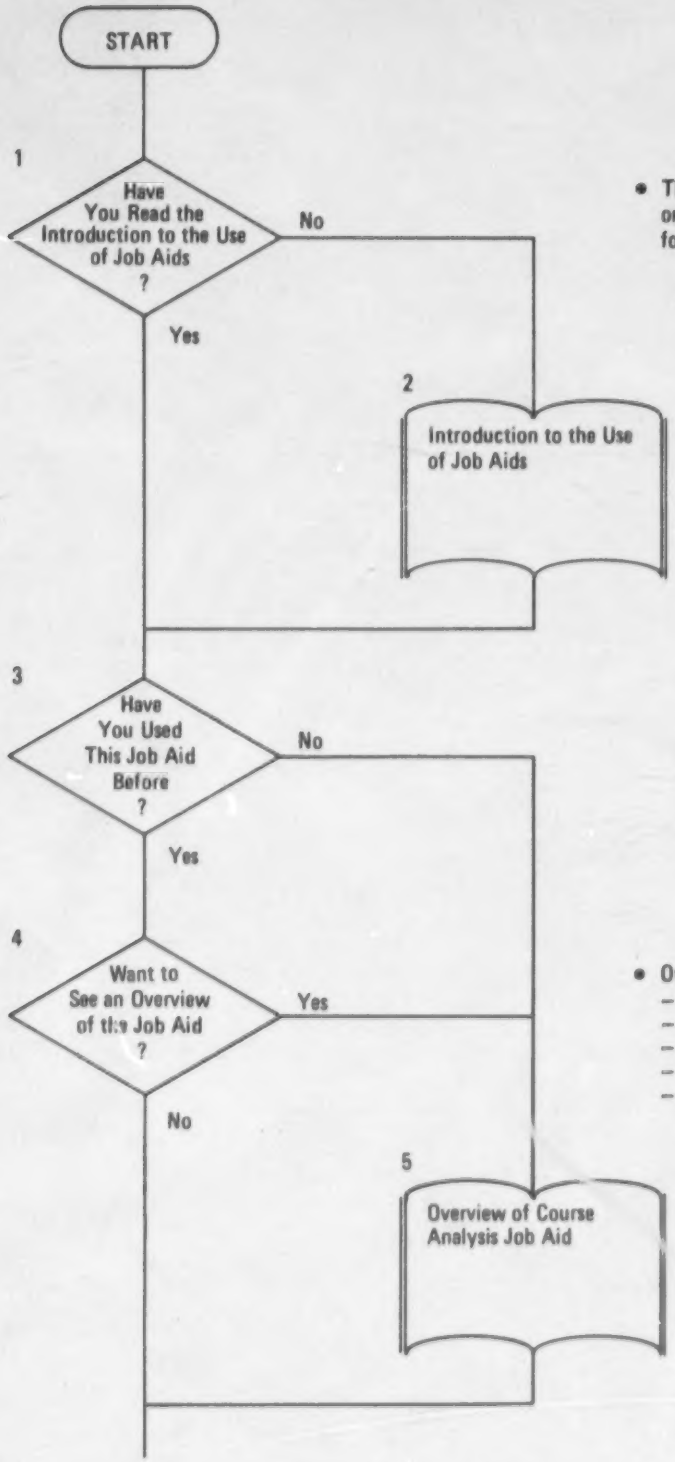
- During the task analysis process information may have been obtained that would be useful to persons who performed activities that fed into the task analysis process. Similarly, information may have been obtained that would be useful to persons who will be engaged in the ISD steps that follow this one.

- Purpose of ISD COORDINATION SHEET is explained in Block 15.

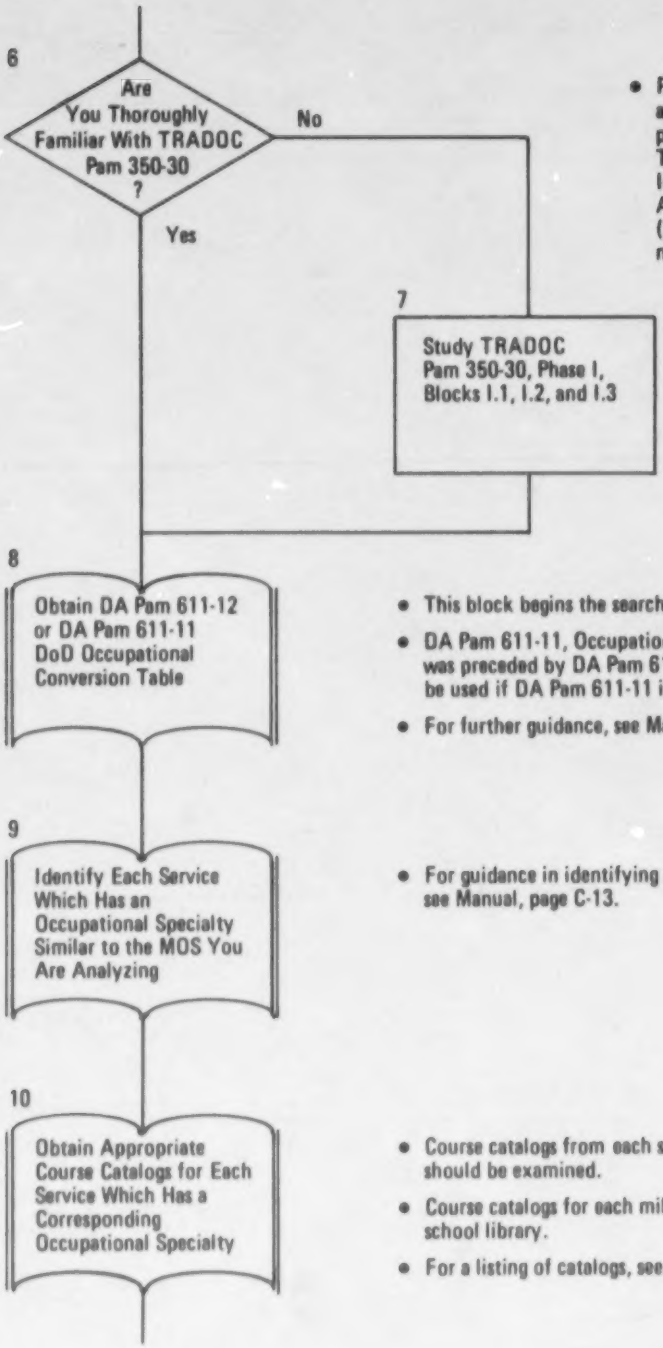
JOB AIDS:
DESCRIPTIVE AUTHORING FLOWCHARTS

ISD I.4 Analyze Existing Courses

This is the 3rd in a series of ISD Job Aids for use in instructional design and development. This volume will direct you to specific guidance, examples, and references provided in the supplementary manual "Job Aid for Analyzing Existing Courses ISD I.4." If you do not have the supplementary manual, request it from your supervisor.



- This introduction provides the user with instruction on the basic structure of the Job Aids and guidance for their use.
- Refer to Introduction.
- Overview includes:
  - Goal
  - Objectives
  - Major steps in process
  - Products
  - Worksheets used
- For detailed overview see Manual, page C-4.

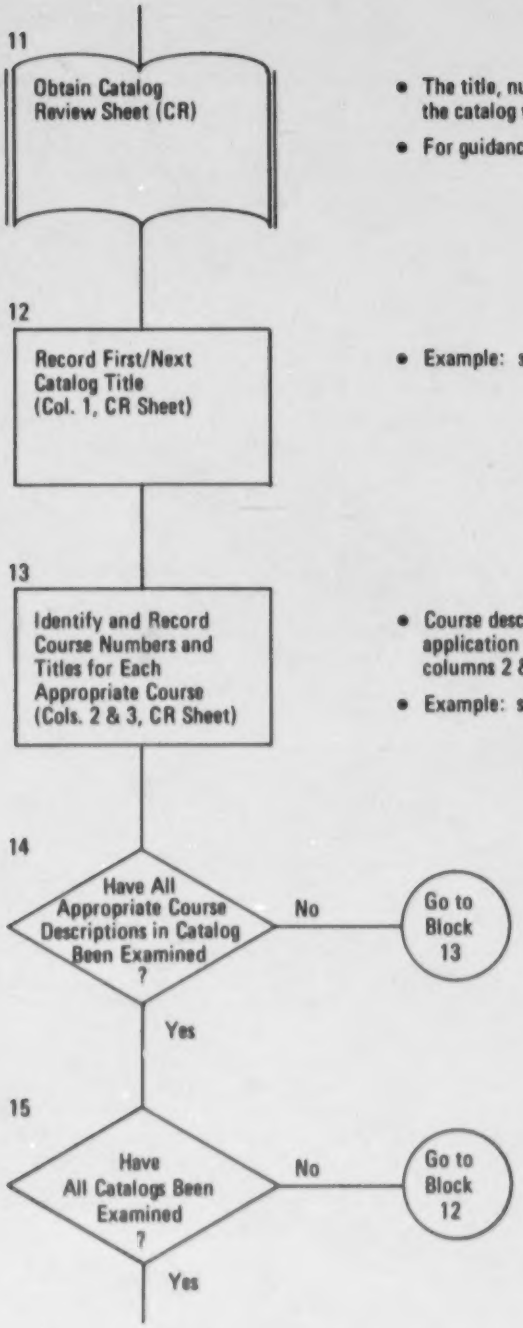

6
Are You Thoroughly Familiar With TRADOC Pam 350-30 ?
No
Yes
7
Study TRADOC Pam 350-30, Phase I, Blocks I.1, I.2, and I.3
8
Obtain DA Pam 611-12 or DA Pam 611-11 DoD Occupational Conversion Table
9
Identify Each Service Which Has an Occupational Specialty Similar to the MOS You Are Analyzing
10
Obtain Appropriate Course Catalogs for Each Service Which Has a Corresponding Occupational Specialty

- Front-end analysis must have been accomplished by acceptable ISD procedures before judgement can be passed as to whether an existing course can be used. TRADOC Pam 350-30, Interservice Procedures for Instructional Systems Development (IPISD), Phase I Analyze, describes front-end analysis procedures (Blocks I.1, I.2, and I.3). The user of this job aid needs a thorough familiarity of these IPISD Blocks.

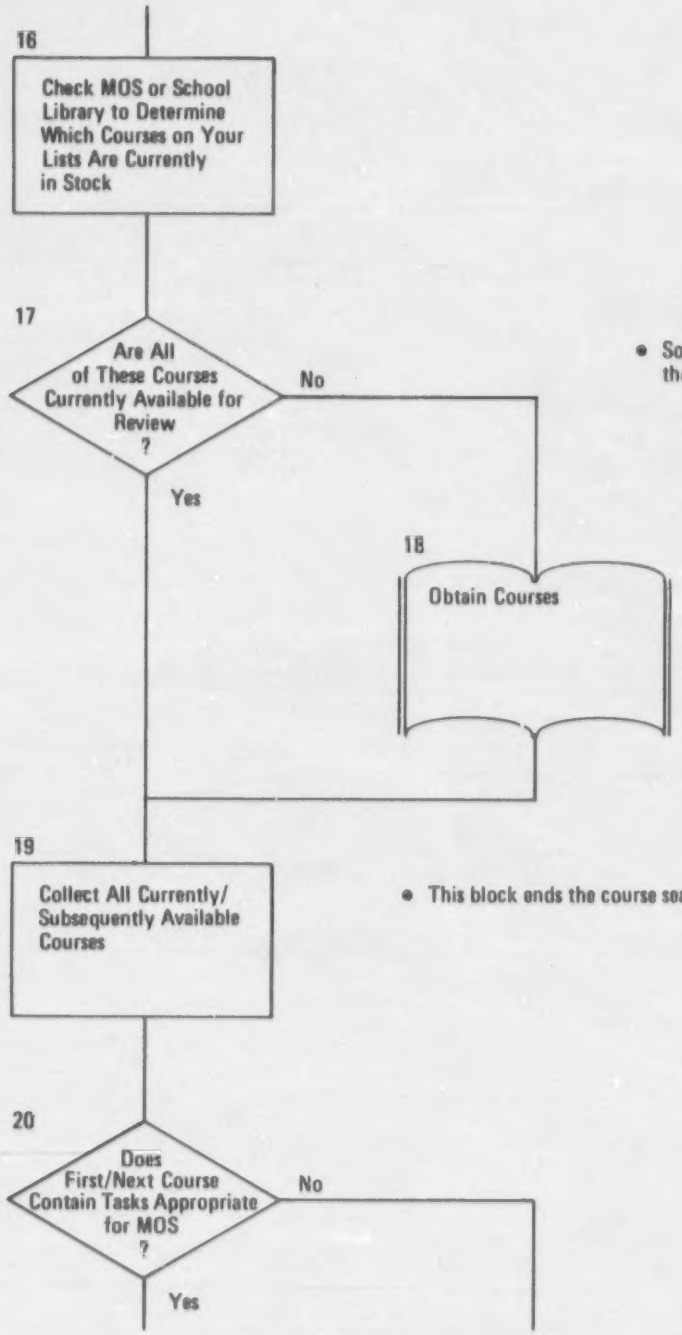
- This block begins the search for appropriate courses.
- DA Pam 611-11, Occupational Conversion Manual for Enlisted/Officer/Civilian was preceded by DA Pam 611-12 before December 1977. DA Pam 611-12 may be used if DA Pam 611-11 is unavailable.
- For further guidance, see Manual, page C-12.

- For guidance in identifying the common DoD occupational groups, see Manual, page C-13.

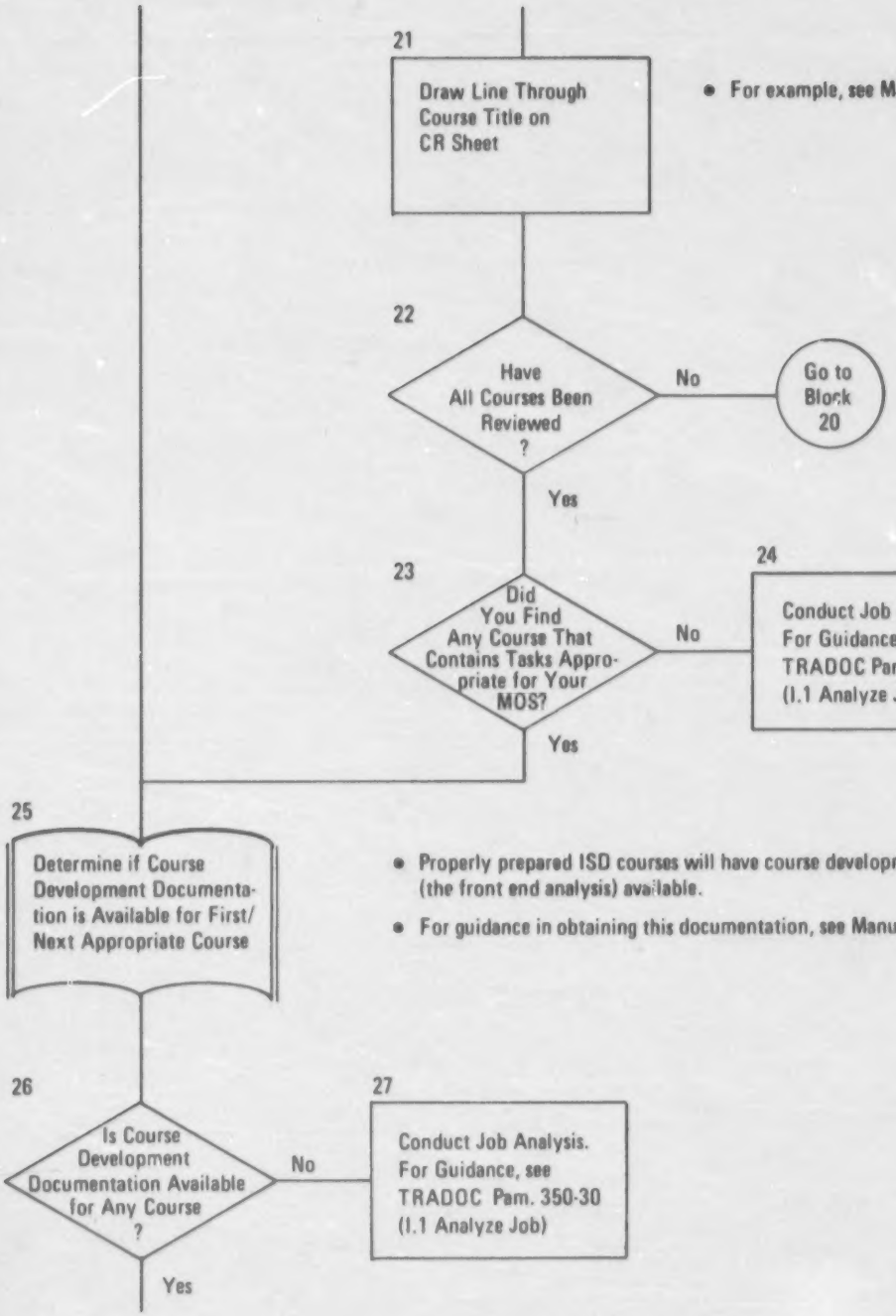
- Course catalogs from each service having a corresponding occupational specialty should be examined.
- Course catalogs for each military service are available through the MOS or school library.
- For a listing of catalogs, see Manual, page C-14.



- The title, number, etc. of Course Catalogs and candidate courses described in the catalog will later be recorded on the Catalog Review Sheet (CR).
- For guidance in obtaining CR Sheet, see Manual, page C-15.
- Example: see Manual, page C-16.
- Course descriptions in the Catalog are examined. If they appear to have application to the ARMY MOS their number and title is recorded in columns 2 & 3 so that they can later be obtained and examined in detail.
- Example: see Manual, page C-17.

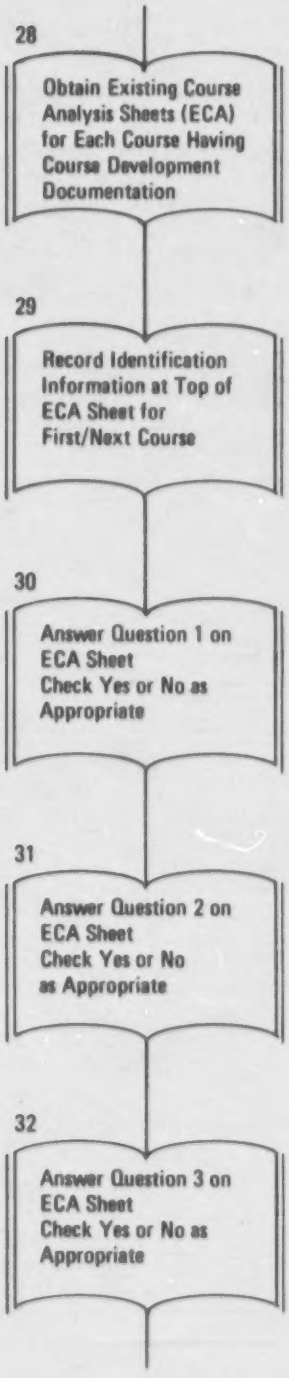


- Some courses may not be available, especially those produced by other services.
- For guidance in obtaining courses, see Manual, page C-21.
- This block ends the course search process.


21
Draw Line Through Course Title on CR Sheet
22
Have All Courses Been Reviewed ?
No
Go to Block 20
Yes
23
Did You Find Any Course That Contains Tasks Appropriate for Your MOS?
No
24
Conduct Job Analysis. For Guidance, see TRADOC Pam. 350-30 (I.1 Analyze Job)
Yes
25
Determine if Course Development Documentation is Available for First/ Next Appropriate Course
26
Is Course Development Documentation Available for Any Course ?
No
27
Conduct Job Analysis. For Guidance, see TRADOC Pam. 350-30 (I.1 Analyze Job)
Yes

- For example, see Manual, page C-23.

- Properly prepared ISD courses will have course development documentation (the front end analysis) available.
- For guidance in obtaining this documentation, see Manual, page C-26.


28
Obtain Existing Course Analysis Sheets (ECA) for Each Course Having Course Development Documentation
29
Record Identification Information at Top of ECA Sheet for First/Next Course
30
Answer Question 1 on ECA Sheet Check Yes or No as Appropriate
31
Answer Question 2 on ECA Sheet Check Yes or No as Appropriate
32
Answer Question 3 on ECA Sheet Check Yes or No as Appropriate

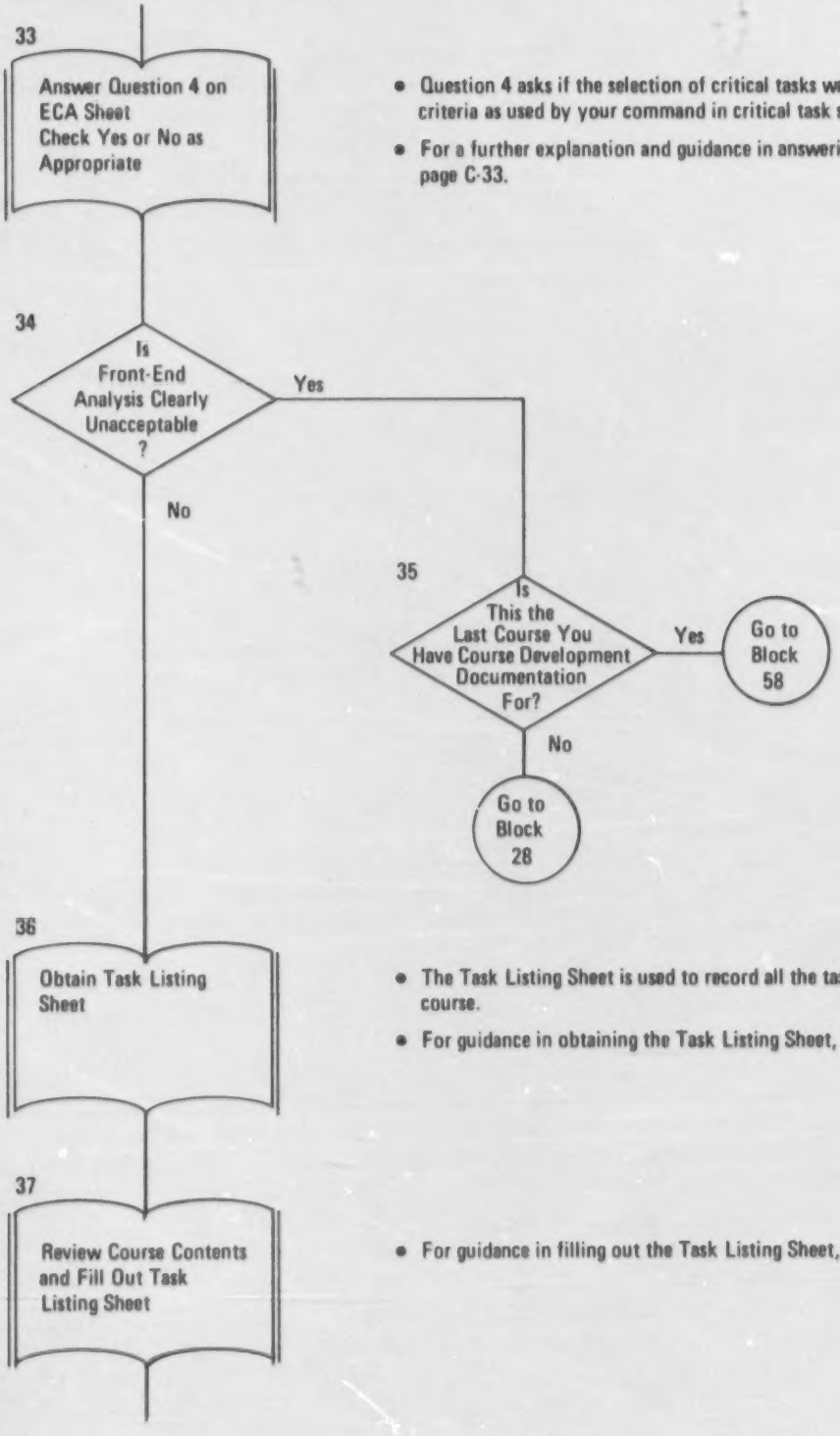
- Analysis of each appropriate existing course is documented on the Existing Course Analysis Sheet (ECA). The ECA Sheet, therefore, provides a record of each decision in the analysis.
- For guidance in obtaining ECA Sheets, see Manual, page C-28.

- Identification includes:
  - Your name/office symbol
  - Date of Review
  - Course Title
  - Course No.
  - Date of Course Publication
  - Office Symbol/AUTOVON of Course Author(s)
- For sources of information and an example of the form when information has been recorded, see Manual, page C-29.

- Question 1 esks if the equipment, doctrine, manpower and personnel systems are essentially the same as when the Front-End Analysis was conducted.
- For a further explanation and guidance in answering Question 1, see Manual, page C-30.

- Question 2 asks if on-site interviews and observations and/or questionnaire surveys were a source of job data for an existing job; or if panel of experts was a source of job data for a new job.
- For a further explanation and guidance in answering Question 2, see Manual, page C-31.

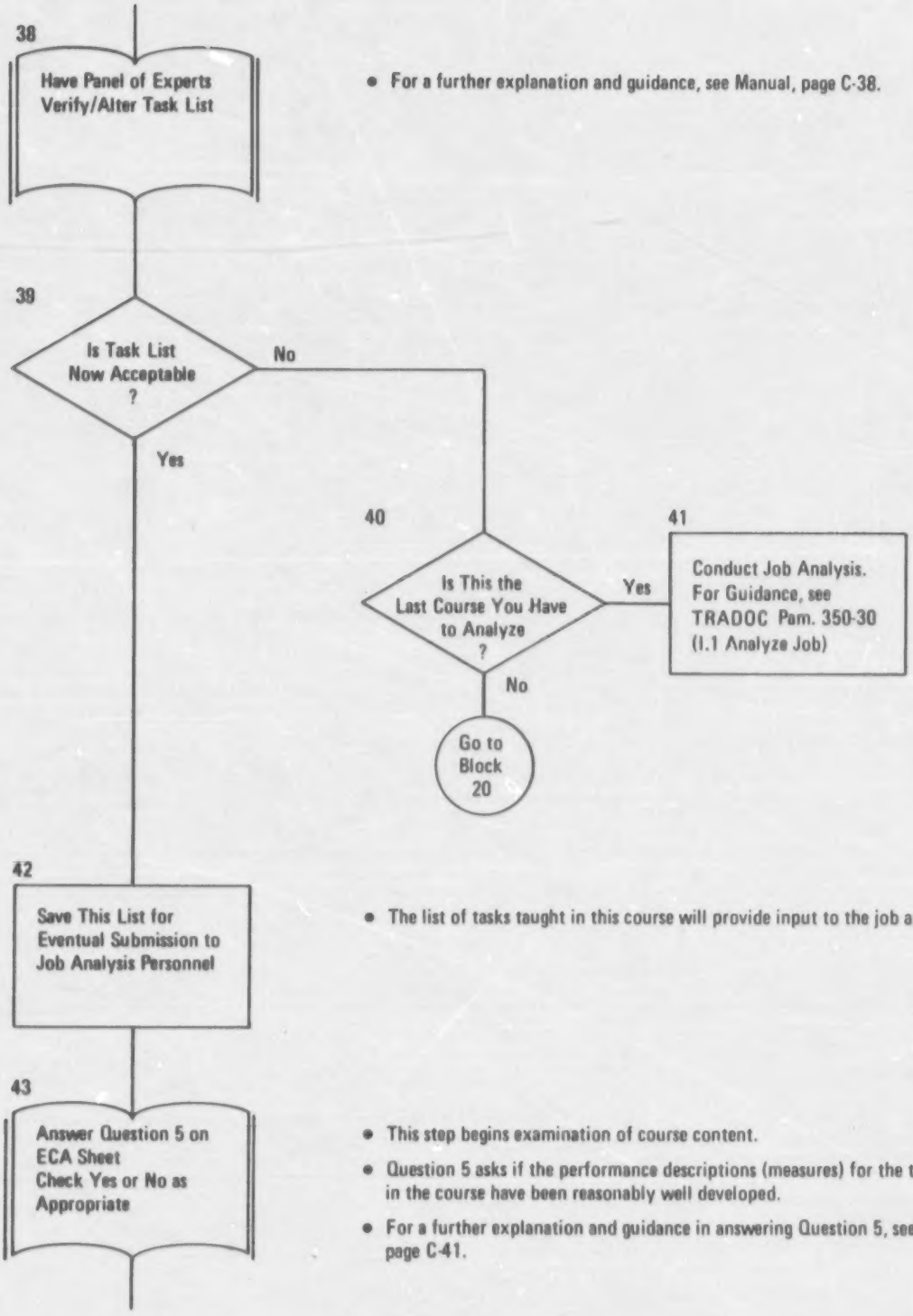
- Question 3 asks if tasks were analyzed according to their steps in performance, conditions, cues and standards.
- For a further explanation and guidance in answering Question 3, see Manual, page C-32.



- Question 4 asks if the selection of critical tasks was based on generally the same criteria as used by your command in critical task selection.
- For a further explanation and guidance in answering Question 4, see Manual, page C-33.

- The Task Listing Sheet is used to record all the tasks taught in a particular course.
- For guidance in obtaining the Task Listing Sheet, see Manual, page C-35.

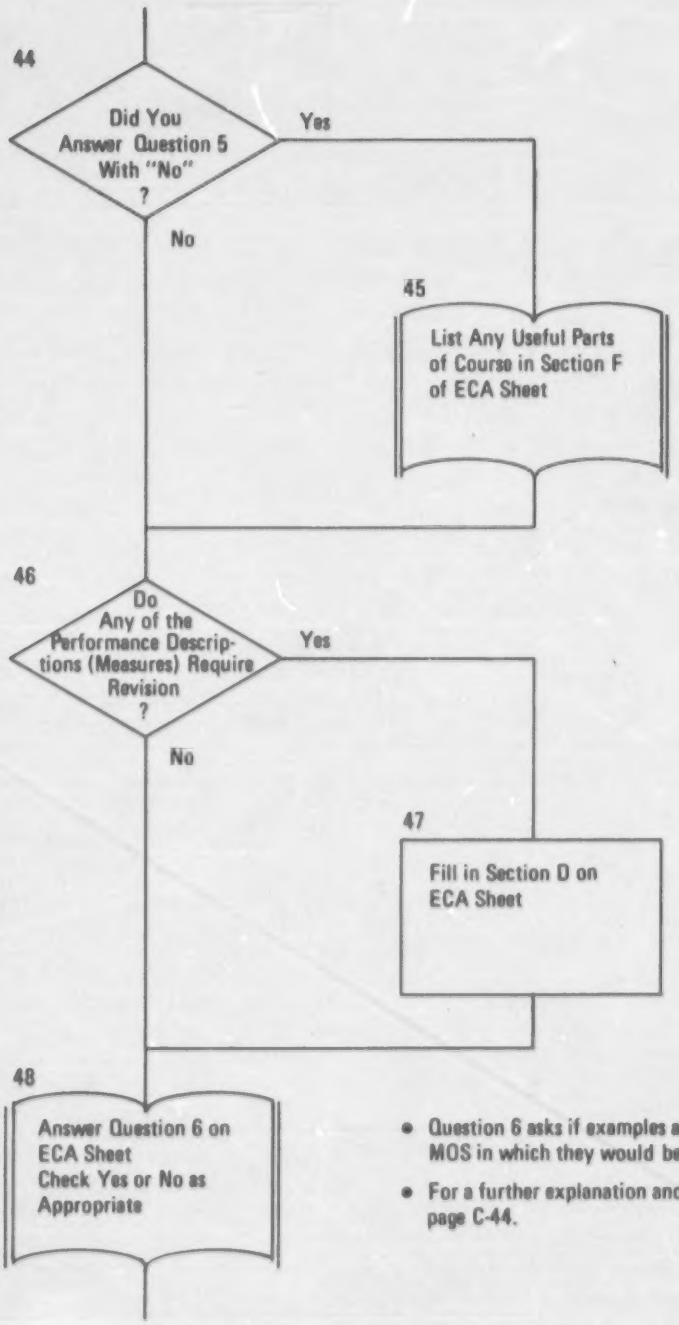
- For guidance in filling out the Task Listing Sheet, see Manual, page C-36.


38
Have Panel of Experts Verify/Alter Task List
39
Is Task List Now Acceptable ?
No
Yes
40
Is This the Last Course You Have to Analyze ?
Yes
41
Conduct Job Analysis. For Guidance, see TRADOC Pam. 350-30 (I.1 Analyze Job)
No
Go to Block 20
42
Save This List for Eventual Submission to Job Analysis Personnel
43
Answer Question 5 on ECA Sheet Check Yes or No as Appropriate

- For a further explanation and guidance, see Manual, page C-38.

- The list of tasks taught in this course will provide input to the job analysis.

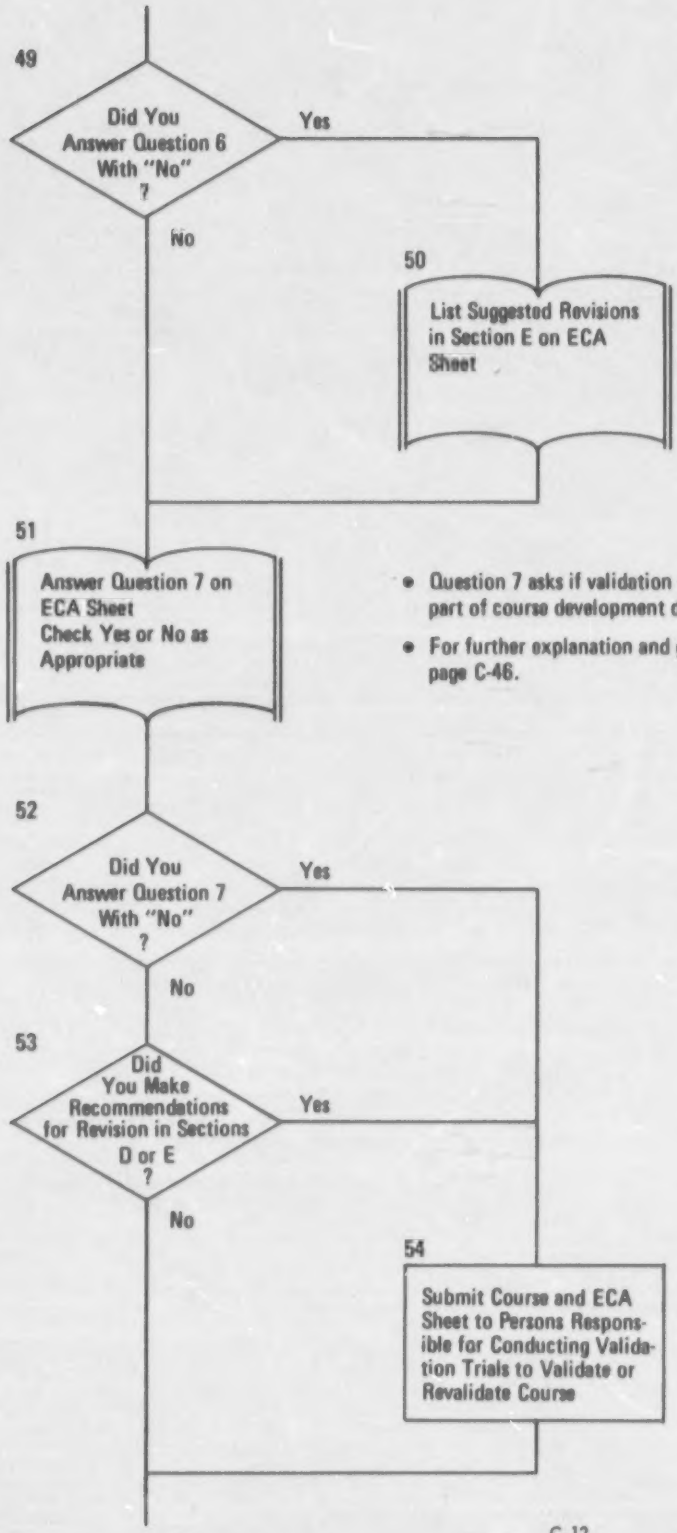
- This step begins examination of course content.
- Question 5 asks if the performance descriptions (measures) for the tasks taught in the course have been reasonably well developed.
- For a further explanation and guidance in answering Question 5, see Manual, page C-41.



- Even if the complete course is unacceptable due to poor performance descriptions, some parts of it may be useful.
- For examples of potentially useful parts of a course, see Manual, page C-42.

- In Section D the tasks which require modification of their performance descriptions are listed. Suggested changes to be made by course development are also recorded.
- For example, see Manual, page C-43.

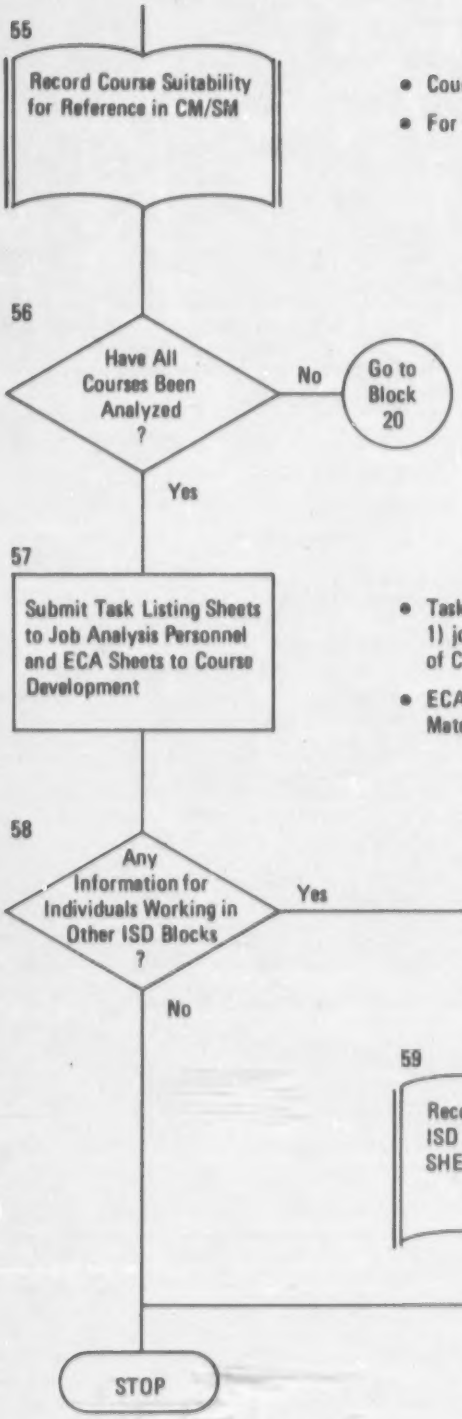
- Question 6 asks if examples and terminology in the course are appropriate for the MOS in which they would be included for training.
- For a further explanation and guidance in answering Question 6, see Manual, page C-44.


49
Did You Answer Question 6 With "No" ?
Yes
No
50
List Suggested Revisions in Section E on ECA Sheet
51
Answer Question 7 on ECA Sheet Check Yes or No as Appropriate
52
Did You Answer Question 7 With "No" ?
Yes
No
53
Did You Make Recommendations for Revision in Sections D or E ?
Yes
No
54
Submit Course and ECA Sheet to Persons Responsible for Conducting Validation Trials to Validate or Revalidate Course

- In Section E revisions are listed which would make the course more appropriate to this MOS.
- For further explanation and guidance, see Manual, page C-45.

- Question 7 asks if validation documentation is acceptable. If it is not available as part of course development documentation, check "No".
- For further explanation and guidance in answering Question 7, see Manual, page C-46.

- Course must be validated if documentation is unavailable.
- Course must be revalidated if original validation is unacceptable or if extensive revisions are made.
- This analysis, as documented on the ECA Sheet, will save Course Development from duplication of effort.



- Courses which have been validated are suitable for references in the CM/SM.
- For further explanation and guidance, see Manual, page C-48.

- Is this the last course you have to analyze?

- Task Listing Sheets are submitted to Job Analysis Section for their use in 1) job and task analysis, and 2) the Training Materials/References Section of CM/SM.
- ECA Sheets are submitted to persons responsible for Review/Select Existing Material in Course Development.

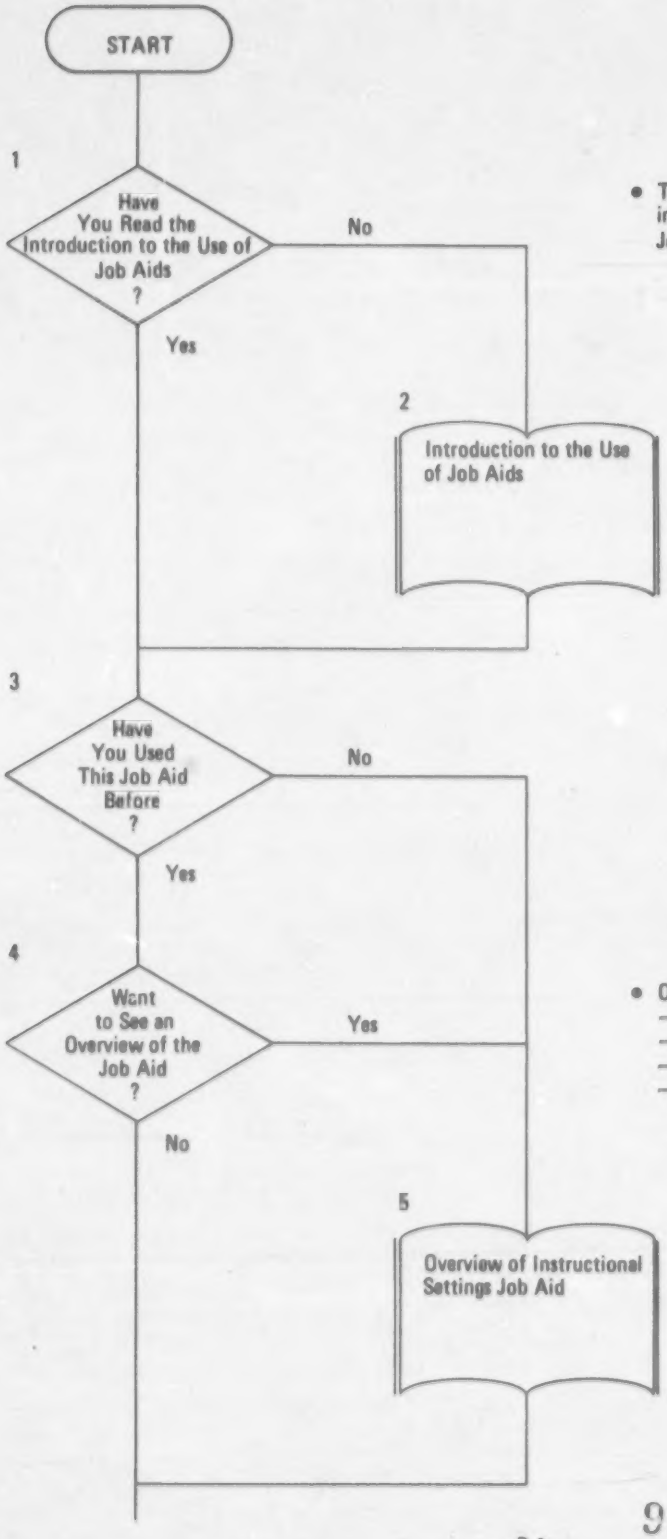
- During the analysis of existing courses information may have been obtained that would be useful to persons working elsewhere in the ISD process.

- Comments are recorded and submitted to appropriate person(s).
- For further guidance, see Manual, page C-52.

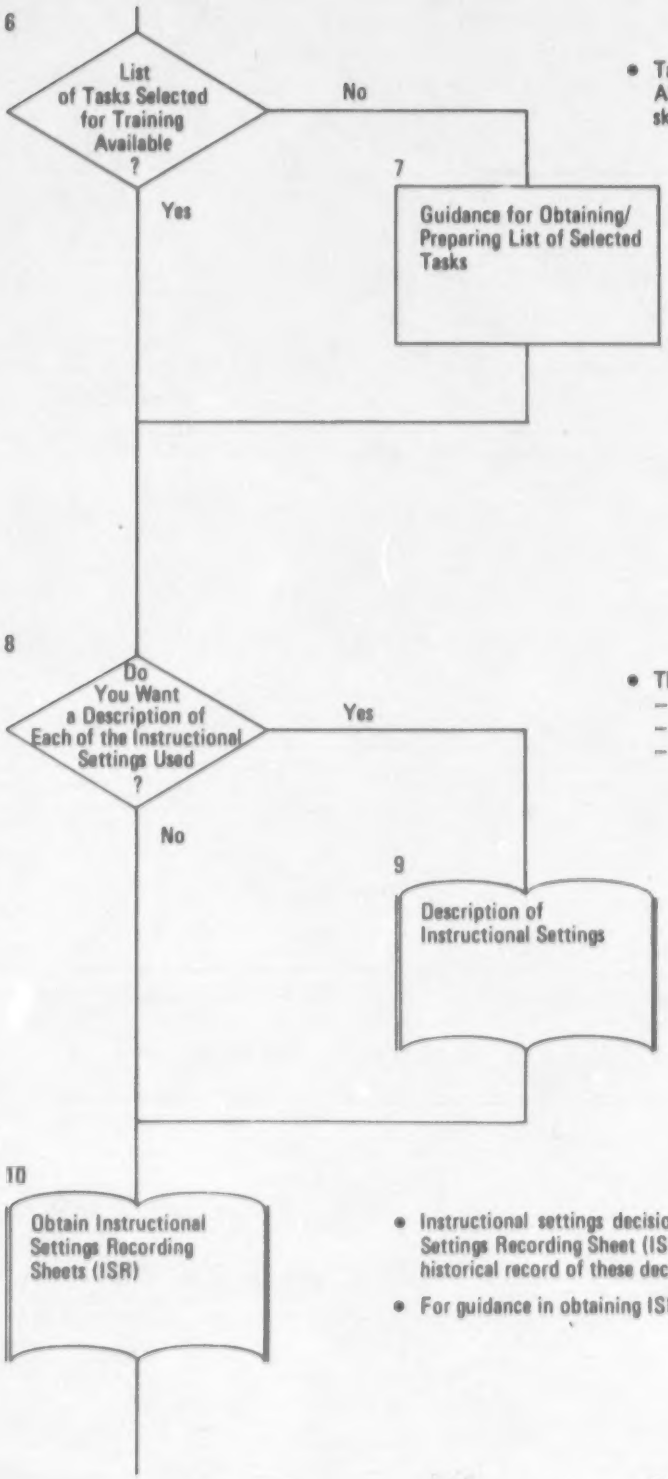
JOB AIDS:
DESCRIPTIVE AUTHORING FLOWCHARTS

ISD I.5 Select Instructional Setting

This is the 4th in a series of ISD Job Aids for use in instructional design and development. This volume will direct you to specific guidance, examples, and references provided in the supplementary manual "Job Aid for Selecting Instructional Setting ISD I.5." If you do not have the supplementary manual, request it from your supervisor.



- This introduction provides the user with instruction on the basic structure of the Job Aids and guidance for their use.
- Refer to Introduction
- Overview includes:
  - Objectives
  - Purpose
  - Major steps in process
  - Worksheets used
- For detailed overview see Manual, page D-4.



- Task listing includes:
  All tasks selected for training grouped by skill level

- List of tasks selected for training should be available as output from ISD I.2 Select Task/Functions.
- If procedures for selecting tasks were not complete, go to Job Aids: Descriptive Authoring Flowcharts ISD I.2 Select Tasks for Training
- When list has been obtained return to Block 6.

- The three instructional settings are:
  - Institution (INST)
  - Supervised on-the-job training (SOJT)
  - Self-Study

- For a description of each instructional setting used in this job aid see Manual, page D-11.

- Instructional settings decisions are recorded on the Instructional Settings Recording Sheet (ISR). The ISR Sheet, therefore, provides an historical record of these decisions and the basis for each.
- For guidance in obtaining ISR Sheets, see Manual, page D-14.

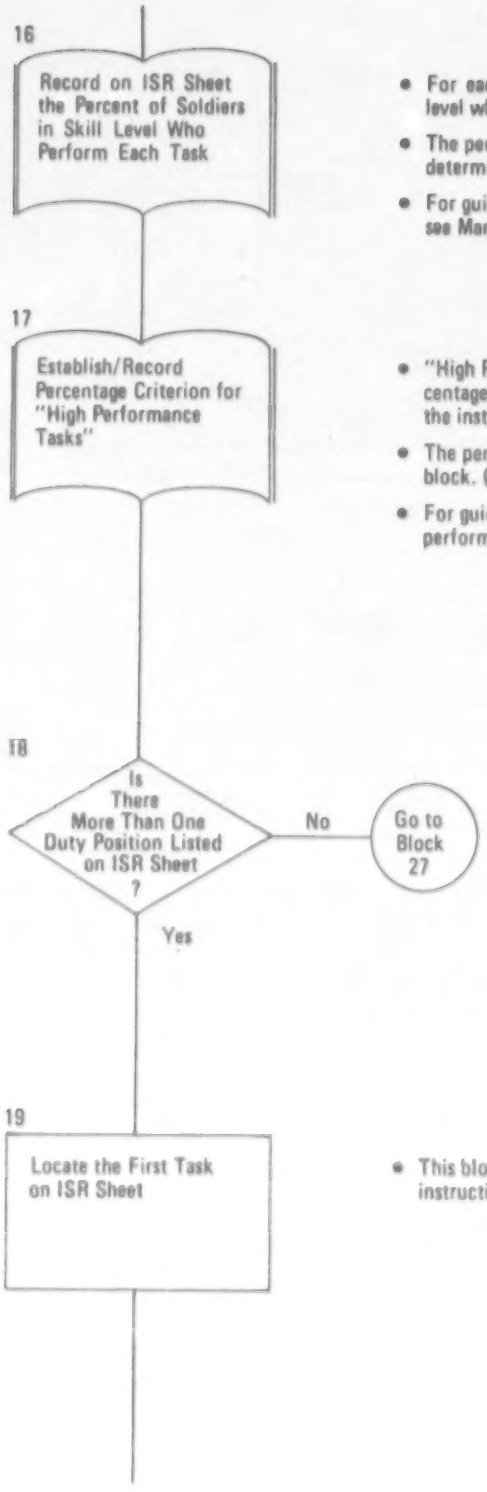
- Information needed for "setting up" the ISR Sheet includes the following:
  - List of critical tasks and their identifying numbers
  - MOS code
  - Skill level designation
  - Duty positions within skill level
  - Tasks performed in each duty position
  - Percentage of soldiers in skill level performing each task
- Sources for this information are shown in Manual, pages D-15 thru D-18.

- MOS code, skill level and ISR Sheet page number are recorded on all ISR Sheets.
- For sources of required information see Manual, pages D-15 thru D-18.
- Example: See Manual, page D-19.

- Duty positions for skill level are recorded under the heading: DUTY POSITIONS
- For sources of information Block 11.
- Example: See Manual, page D-20.

- Record the identification number shown on the critical task listing (e.g. 051-191-3397) for each of the critical tasks in the skill level.
- Attach a copy of the critical task listing to the ISR Sheet to assist in the identification of the tasks the numbers refer to.
- Example: See Manual, page D-21.

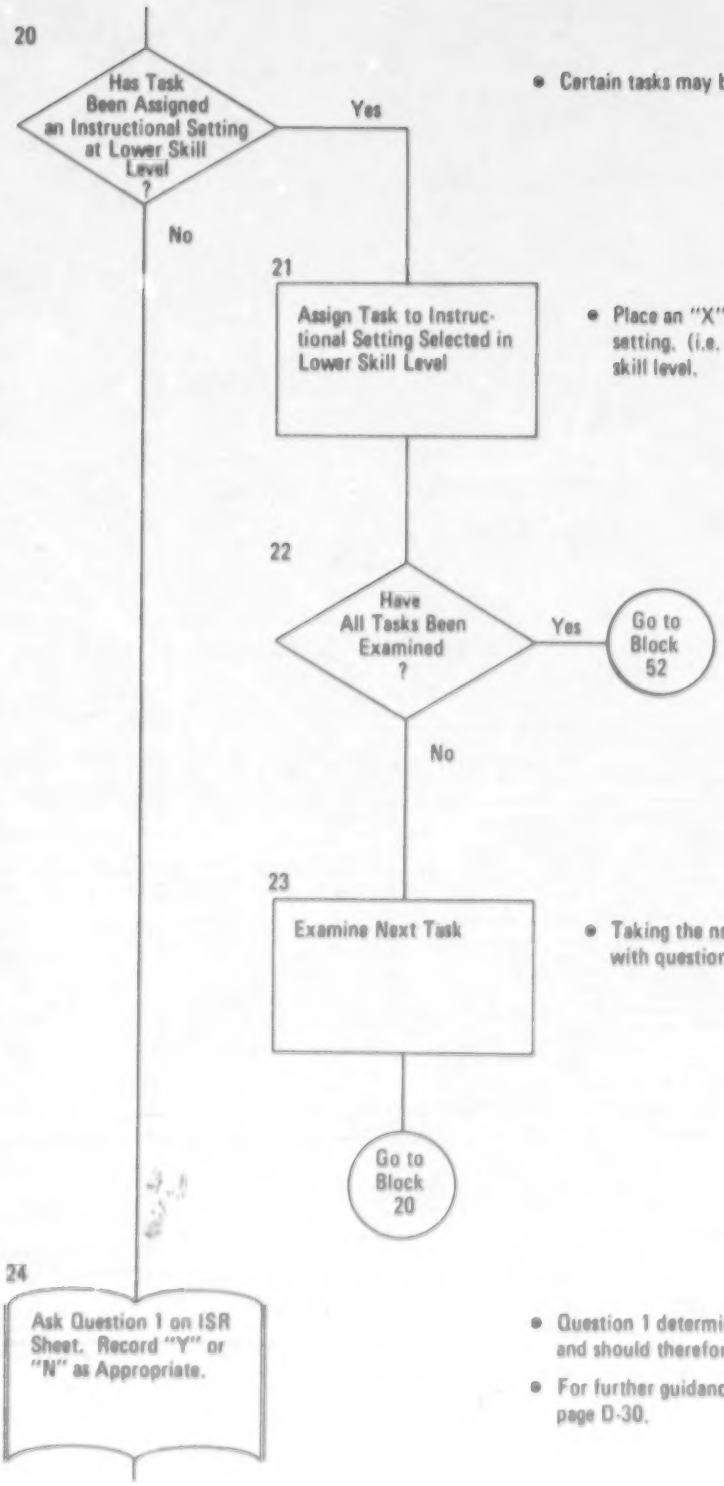
- For guidance in recording task performance in each duty position see Manual, page D-22.


16
Record on ISR Sheet the Percent of Soldiers in Skill Level Who Perform Each Task
17
Establish/Record Percentage Criterion for "High Performance Tasks"
18
Is There More Than One Duty Position Listed on ISR Sheet ?
No
Go to Block 27
Yes
19
Locate the First Task on ISR Sheet

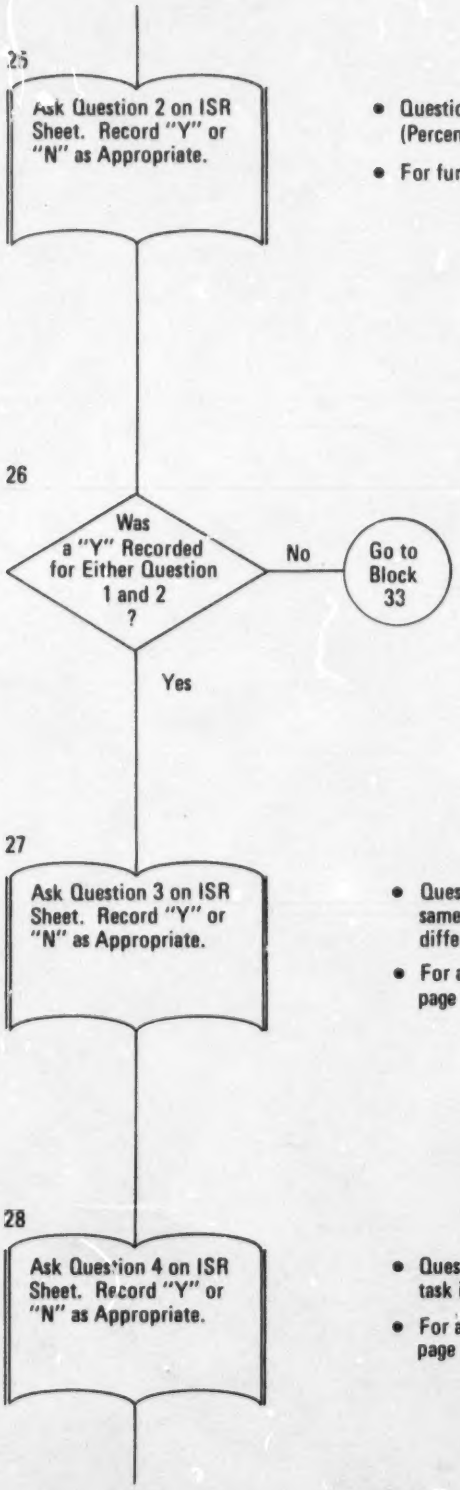
- For each task on the ISR Sheet, the percent of soldiers within the skill level who perform the task is recorded.
- The percent of soldiers in skill level performing each task is one criterion for determining the instructional setting for tasks.
- For guidance in determining and recording the percent performing each task see Manual, page D-23.

- "High Performance Tasks" are those tasks that are performed by a high percentage of job incumbents. High Performance Tasks are usually trained in the institutional instructional setting.
- The percentage that defines a high performance task is established in this block. (e.g. at least 80% or 90% of the job incumbents perform the task).
- For guidance in establishing and recording the percentage to be used for high performance classification, see Manual, page D-27.

- This block begins the process of initial assignment of tasks to one of three instructional settings.



- Certain tasks may be performed in more than one skill level.
- Place an "X" under the task in the appropriate instructional setting. (i.e. The instructional setting selected in the lower skill level.
- Taking the next task on the ISR Sheet you will start again with question 1.
- Question 1 determines if task is performed in all duty positions and should therefore be classified as a "common skill level task".
- For further guidance in answereing question 1, see Manual, page D-30.

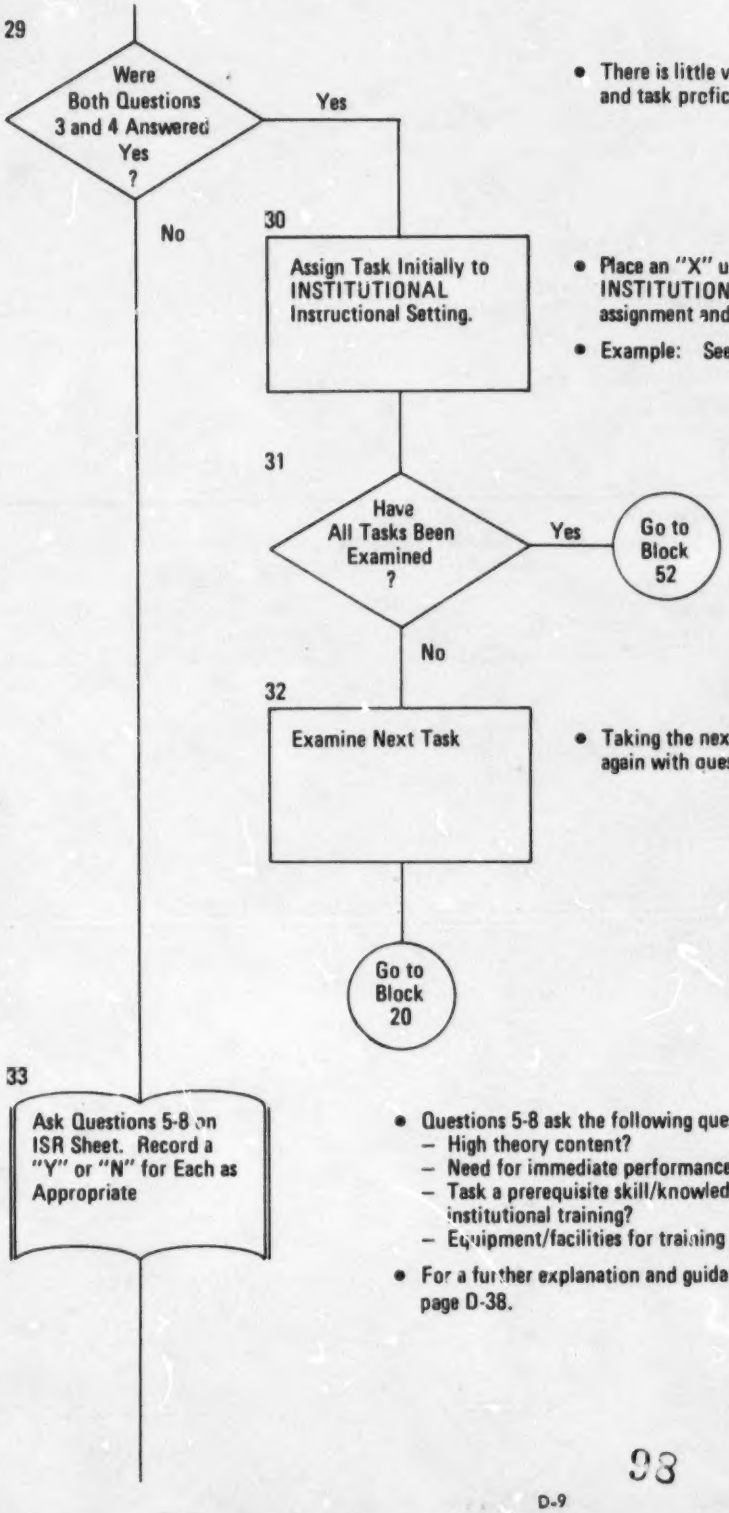

25
Ask Question 2 on ISR Sheet. Record "Y" or "N" as Appropriate.
26
Was a "Y" Recorded for Either Question 1 and 2 ?
No
Go to Block 33
Yes
27
Ask Question 3 on ISR Sheet. Record "Y" or "N" as Appropriate.
28
Ask Question 4 on ISR Sheet. Record "Y" or "N" as Appropriate.

- Question 2 determines if task should be classified as a "high performance task". (Percentage was established in block 17.)
- For further guidance in answering question 2, see Manual, page D-32.

- A "yes" response is made if the task was classified as either a common skill level task and/or a high performance task.
- A "no" response is made if the task is neither a common skill level task nor a high performance task. If "no" go to block 33.

- Question 3 determines if training requirements for the task are essentially the same even though equipment, unit mission and/or geographical location may differ.
- For a further explanation and guidance in answering question 3, see Manual, page D-33.

- Question 4 asks if school training for a task would be remembered until the task is performed in the field.
- For a further explanation and guidance in answering question 4, see Manual, page D-35.

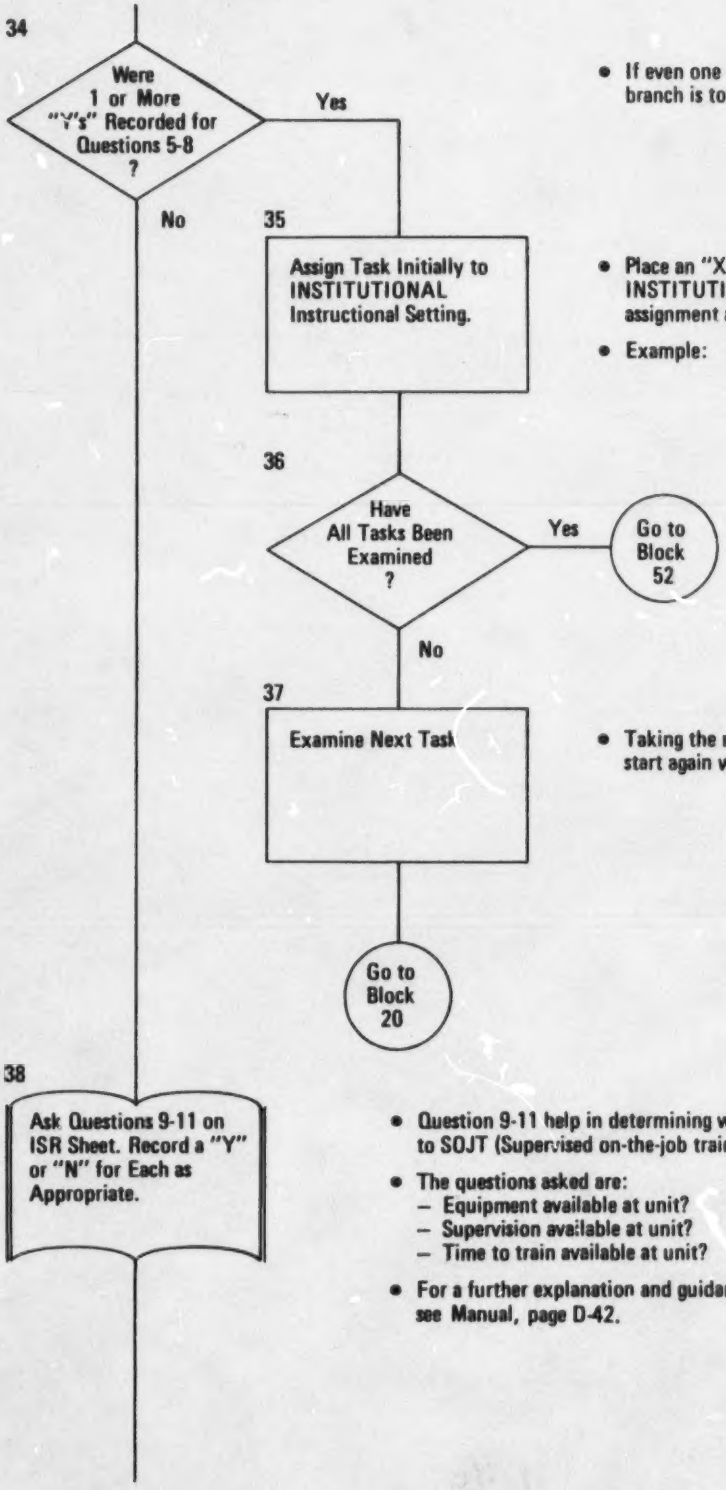


- There is little variability in task training requirements and task proficiency is easily retained.

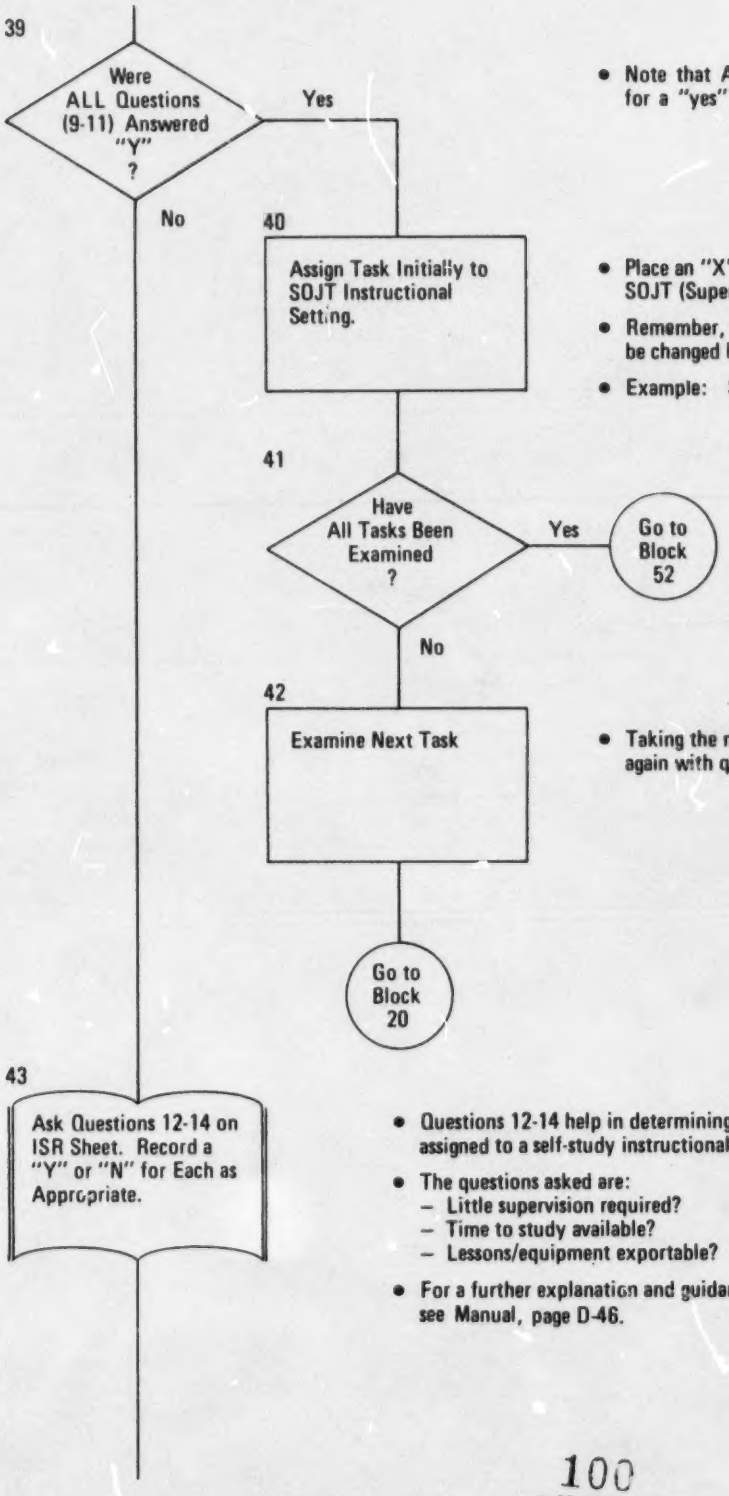
- Place an "X" under the task in the row labeled INSTITUTION. Remember, this is only an initial assignment and may be changed later
- Example: See Manual, page D-37.

- Taking the next task on the ISR Sheet you will start again with question 1.

- Questions 5-8 ask the following questions:
  - High theory content?
  - Need for immediate performance?
  - Task a prerequisite skill/knowledge for another task already assigned for institutional training?
  - Equipment/facilities for training only available in the institutional setting?
- For a further explanation and guidance in answering questions 5-8, see Manual, page D-38.



- If even one question was answered yes a "Yes" branch is to be taken.
- Place an "X" under the task in the row labeled INSTITUTION. Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-41.
- Taking the next task on the ISR Sheet you will start again with question 1.
- Question 9-11 help in determining whether the task can be assigned initially to SOJT (Supervised on-the-job training).
- The questions asked are:
  - Equipment available at unit?
  - Supervision available at unit?
  - Time to train available at unit?
- For a further explanation and guidance in answering questions 9-11, see Manual, page D-42.

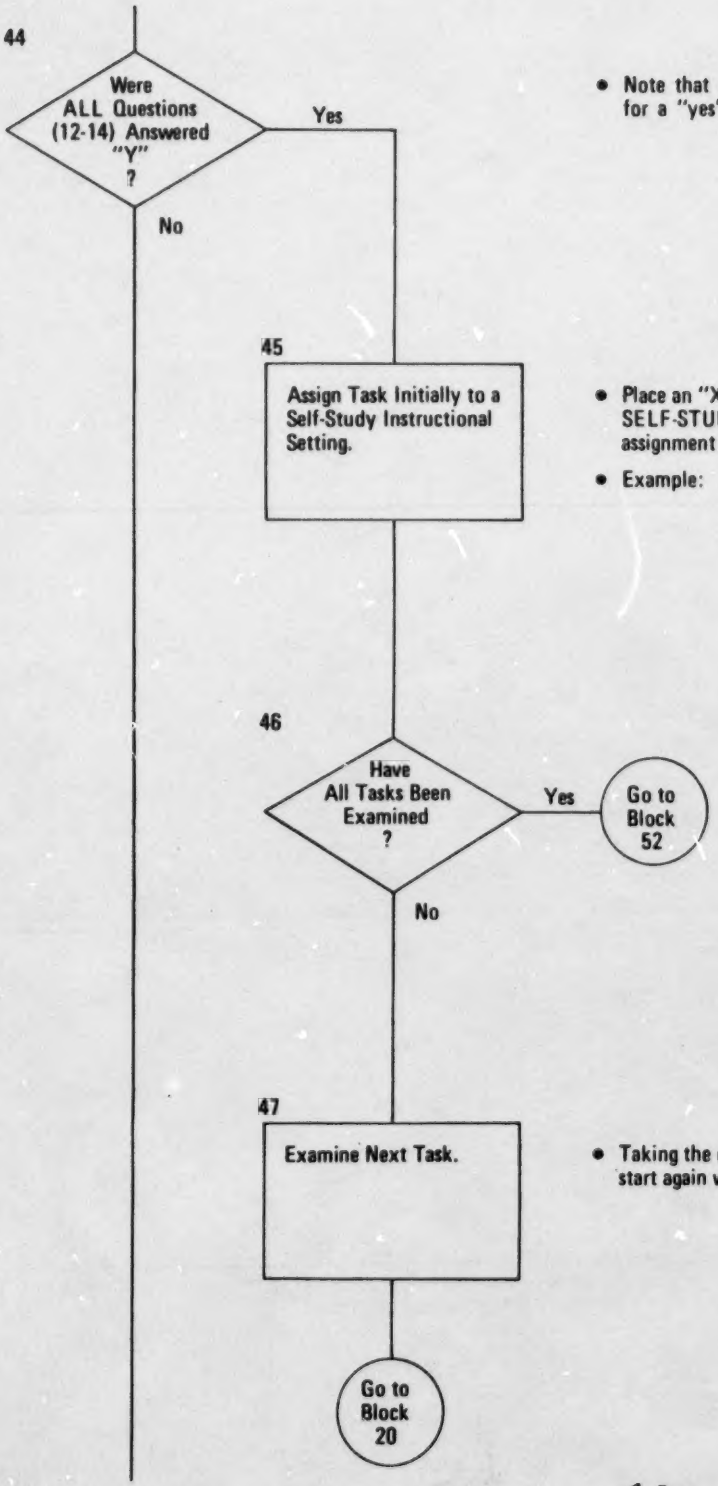


- Note that ALL questions must be answered "Y" for a "yes" branch to be taken.

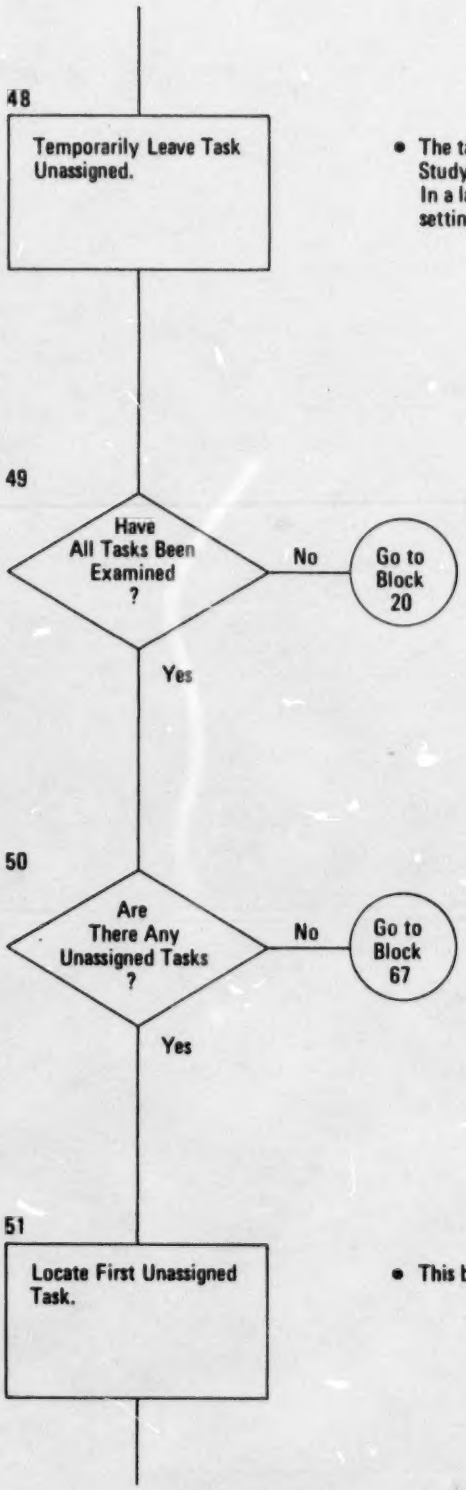
- Place an "X" under the task in the row labeled SOJT (Supervised on-the-job training).
- Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-45.

- Taking the next task on the ISR Sheet you will start again with question 1.

- Questions 12-14 help in determining whether the task should be initially assigned to a self-study instructional setting.
- The questions asked are:
  - Little supervision required?
  - Time to study available?
  - Lessons/equipment exportable?
- For a further explanation and guidance in answering questions 12-14, see Manual, page D-46.



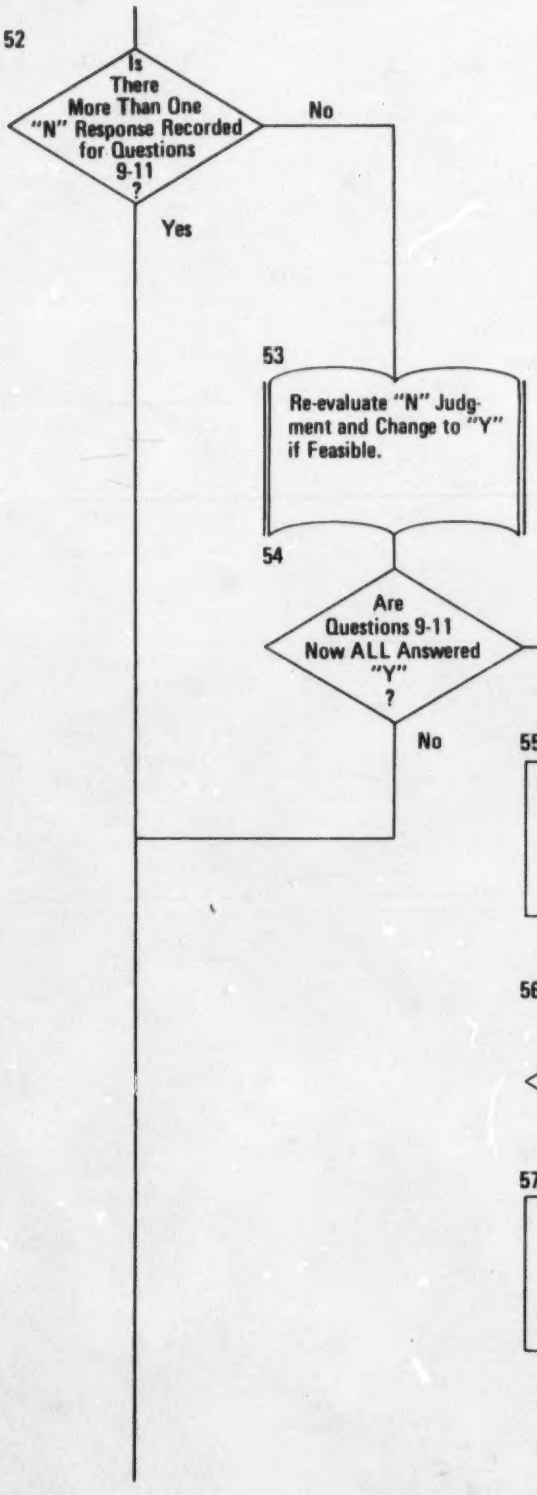
- Note that ALL questions must be answered "Y" for a "yes" branch to be taken.
- Place an "X" under the task in the row labeled SELF-STUDY. Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-49.
- Taking the next task on the ISR Sheet you will start again with question 1.



- The task has not been initially assigned to an Institutional, SOJT or Self Study Instructional setting. Temporarily you will leave the task unassigned. In a later block unassigned tasks will be re-examined and instructional setting assignments will be made.

- Unassigned tasks are those tasks temporarily left unassigned in block 48.

- This block begins the re-examination of tasks previously left unassigned.

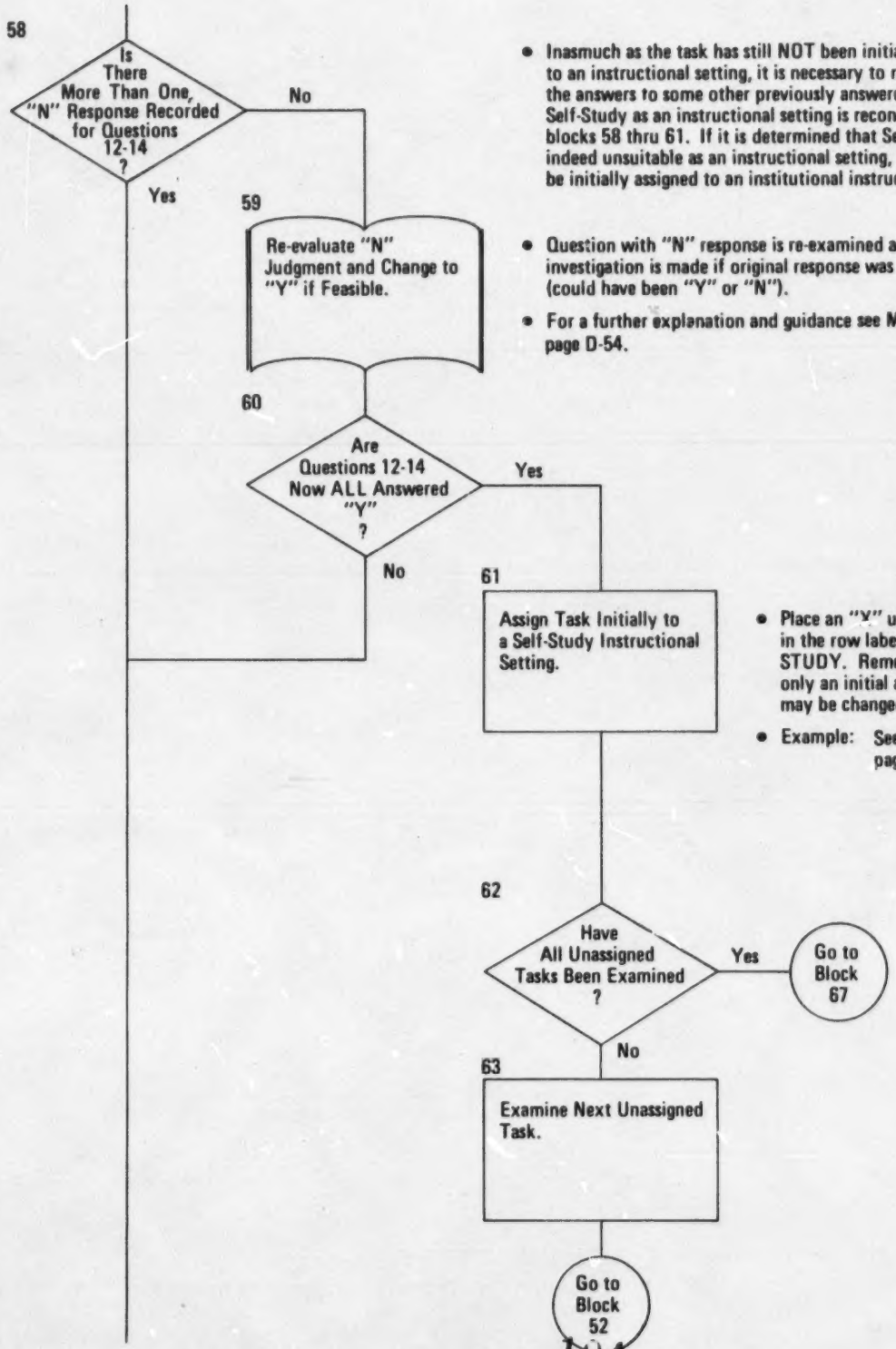


- Inasmuch as the task has still NOT been initially assigned to an instructional setting, it is necessary to re-evaluate the answers to some previously answered questions, SOJT is reconsidered in blocks 53 thru 55. If it is determined that SOJT is indeed unsuitable as an instructional setting, the task will be re-evaluated for assignment to another instructional setting.

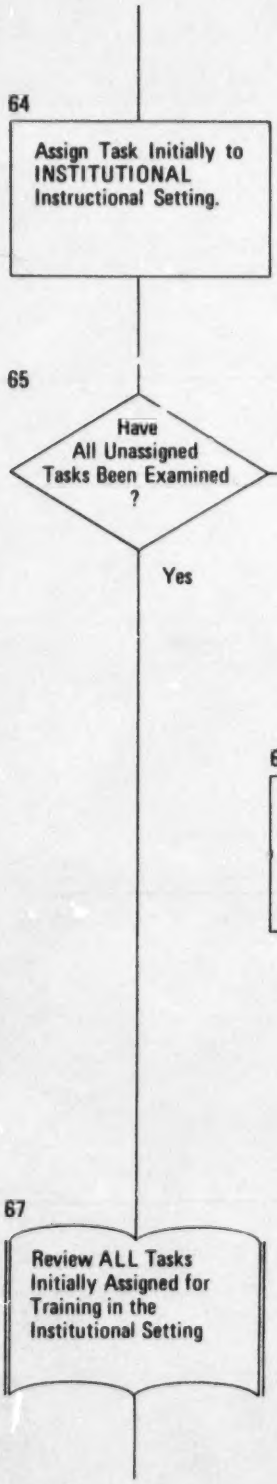
- Question with "N" response is re-examined and further investigation is made if original response was marginal (could have been "Y" or "N").
- For a further explanation and guidance see Manual, page D-52.

- Place an "X" under the task in the row labeled SOJT. Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-53.

- Using the next task on the ISR Sheet you will start again with question 1.



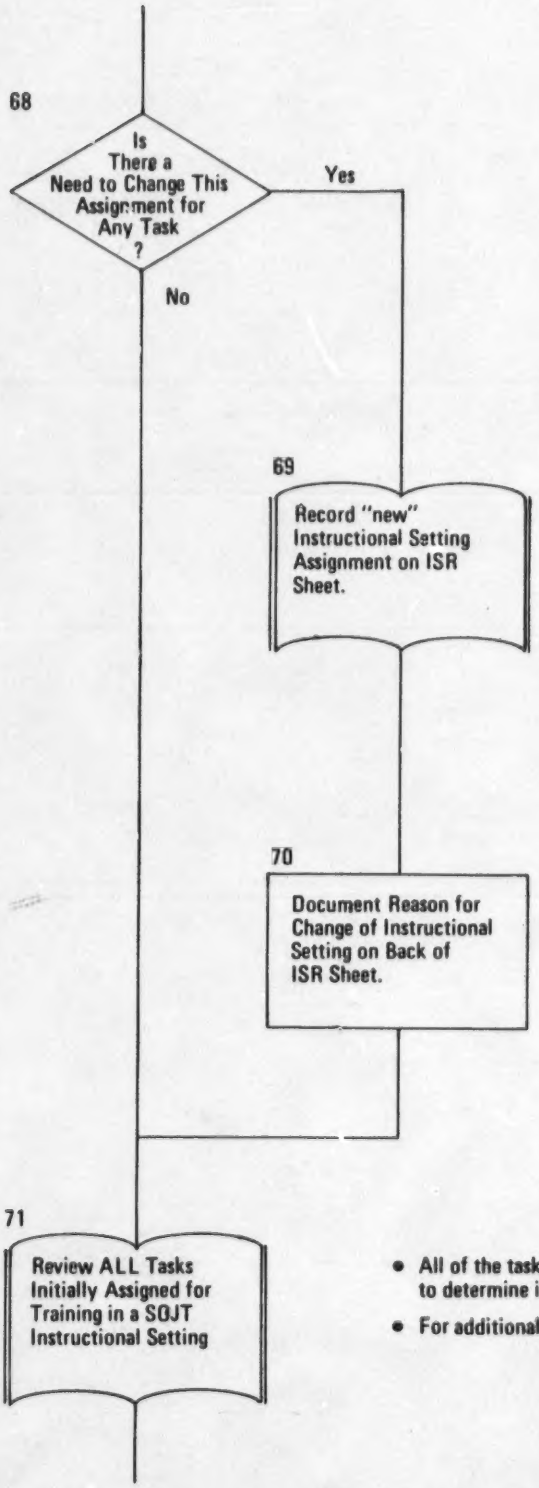
- Inasmuch as the task has still NOT been initially assigned to an instructional setting, it is necessary to re-evaluate the answers to some other previously answered questions. Self-Study as an instructional setting is reconsidered in blocks 58 thru 61. If it is determined that Self-Study is indeed unsuitable as an instructional setting, the task will be initially assigned to an institutional instructional setting.
- Question with "N" response is re-examined and further investigation is made if original response was marginal (could have been "Y" or "N").
- For a further explanation and guidance see Manual, page D-54.
- Place an "X" under the task in the row labeled SELF-STUDY. Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-55.



- The task is initially assigned to the Institutional instructional setting because it was determined (initially) that an SOJT or self-study instructional setting was not appropriate. Remember, this is only an initial assignment and may be changed later.
- Example: See Manual, page D-56.

- Using the next task on the ISR Sheet you will start again with question 1.

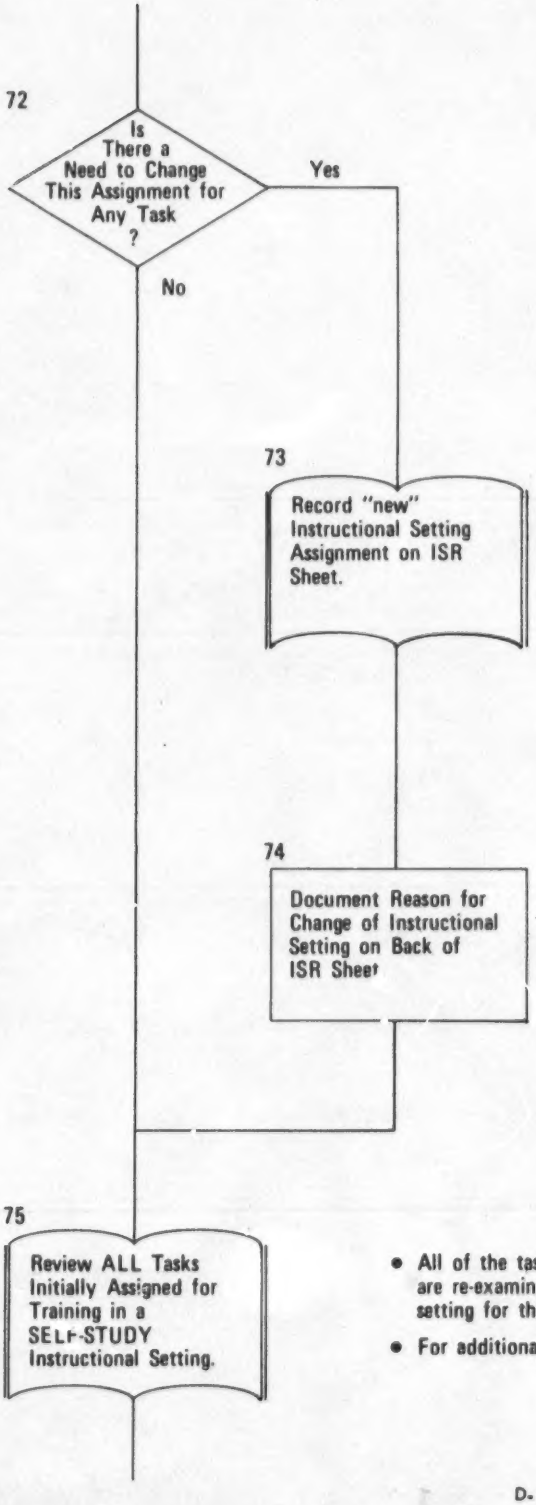
- All of the tasks previously initially assigned to an institutional setting are re-examined to determine if this classification is the best instructional setting for the tasks.
- For additional guidance, see Manual, page D-57.


68
Is There a Need to Change This Assignment for Any Task ?
Yes
No
69
Record "new" Instructional Setting Assignment on ISR Sheet.
70
Document Reason for Change of Instructional Setting on Back of ISR Sheet.
71
Review ALL Tasks Initially Assigned for Training in a SOJT Instructional Setting

- Both the previous initial instructional setting and the new setting are shown on the ISR Sheet.
- For guidance in recording new instructional setting, see Manual, page D-58.

- The task ID number and the reason for changing the instructional setting to SOJT or Self-Study is recorded on back of ISR Sheet
- Example: See Manual, page D-59.

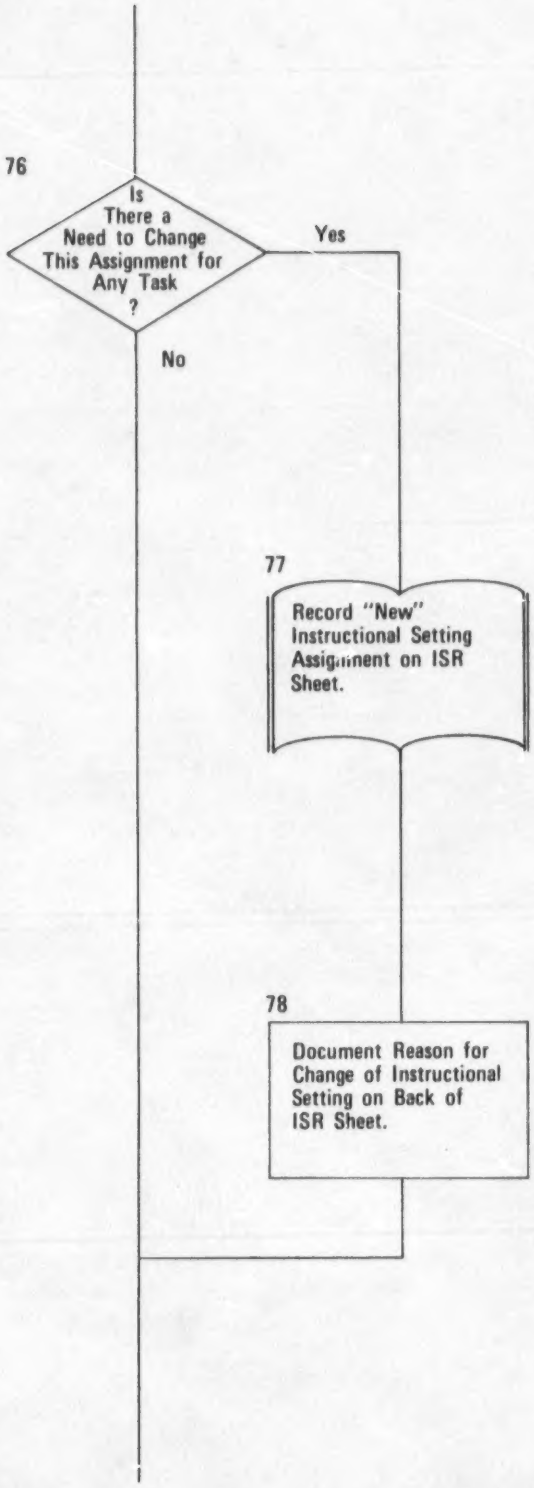
- All of the tasks previously initially assigned to a SOJT setting are re-examined to determine if this classification is the best instructional setting for the tasks.
- For additional guidance, see Manual, page D-61.


72
Is There a Need to Change This Assignment for Any Task ?
Yes
No
73
Record "new" Instructional Setting Assignment on ISR Sheet.
74
Document Reason for Change of Instructional Setting on Back of ISR Sheet
75
Review ALL Tasks Initially Assigned for Training in a SELF-STUDY Instructional Setting.

- Both the previous initial instructional setting and the new setting are shown on the ISR Sheet.
- For guidance in recording new instructional setting, see Manual, page D-62.

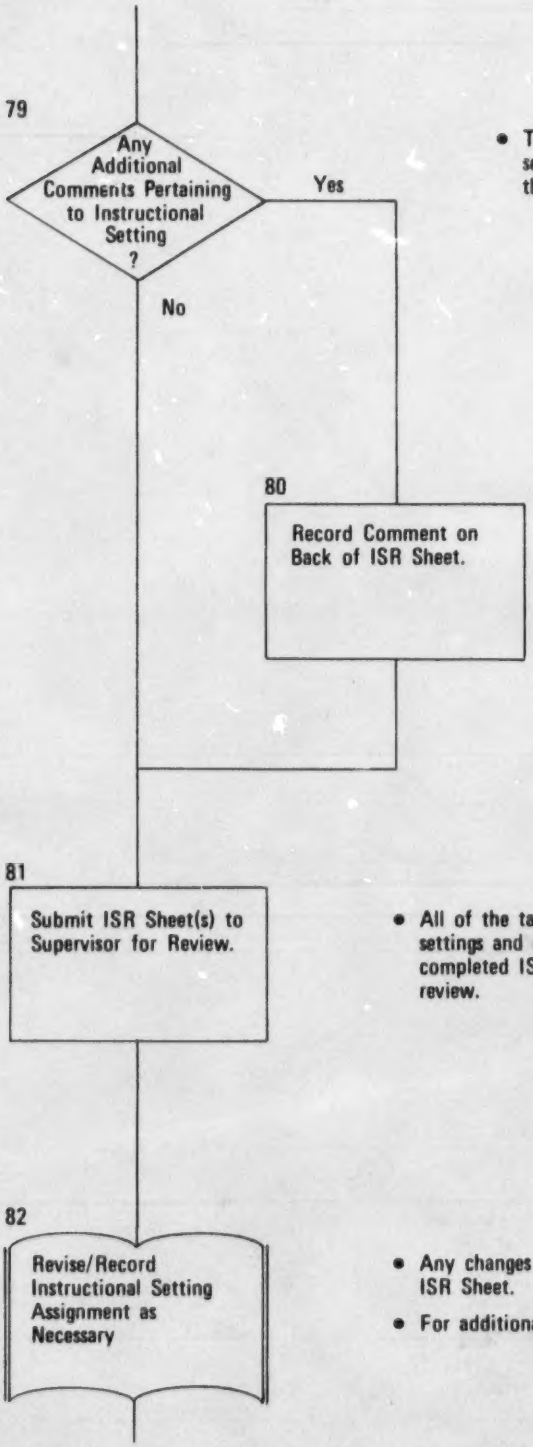
- The task ID number and the reason for changing the instructional setting to Institution or Self-Study is recorded on back of ISR Sheet.
- Example: See Manual, page D-9.

- All of the tasks previously initially assigned to a Self-Study setting are re-examined to determine if this classification is the best instructional setting for the tasks.
- For additional guidance, see Manual, page D-63.


76
Is There a Need to Change This Assignment for Any Task ?
Yes
No
77
Record "New" Instructional Setting Assignment on ISR Sheet.
78
Document Reason for Change of Instructional Setting on Back of ISR Sheet.

- Both the previous initial instructional setting and the new setting are shown on the ISR Sheet.
- For guidance in recording new instructional setting, see Manual, page D-64.

- The task ID number and the reason for changing the instructional setting to Institution or SOJT is recorded on back of ISR Sheet.
- Example: See Manual, page D-9.

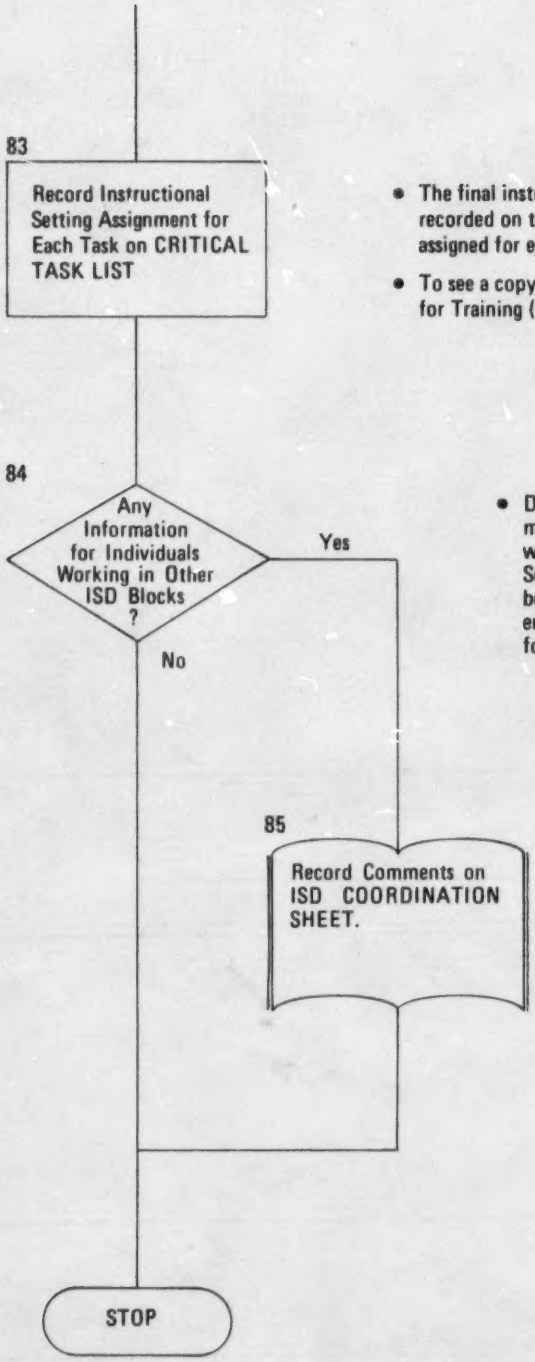


- There may be unrecorded information pertaining to the selection of instructional setting process. It is important that this is documented as part of the historical record.

- Use the back of any of the ISR Sheets (wherever space is available). On the bottom of the front of the ISR Sheet # 1 record: "Comment and page number."

- All of the tasks have now been assigned to one of the three instructional settings and documentation for each assignment has been recorded. The completed ISR Sheets are now submitted to the supervisor for final review.

- Any changes in instructional setting assignments are recorded on the ISR Sheet.
- For additional guidance, see Manual, page D-66.



- The final instructional setting assignment has now been arrived at and recorded on the ISR Sheet. In this block the Instructional setting assigned for each task is recorded on the Critical Task List.
- To see a copy of a Critical Task List see Job Aid for Selecting Tasks for Training (ISD I.2).

- During the instruction setting selection process information may have been obtained that would be useful to persons who performed activities that fed into the Instructional Setting selection process. Similarly, information may have been obtained that would be useful to persons who will be engaged in Instructional Systems Development steps that follow this one.

- Comments are recorded and submitted to appropriate persons.
- For further guidance, see Manual, page D-68.